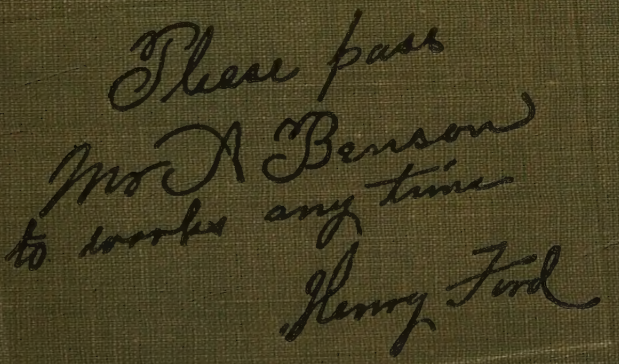
THE NEW HENRY FORD



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The new Henry Ford

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THE NEW HENRY FORD

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BY
ALLAN L. BENSON

Illustrations from Photographs
Obtained Especially for this Book

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INTRODUCTION

THIS book has two purposes. The first is to tell the story of Henry Ford's life as he has told it to the writer. The Second is to introduce to the world a new Henry Ford.

The Henry Ford of 1914 is gone. The writer did not realize this until he had been at work some time upon the preparation of this book. The discovery was brought about by the reading of scrap-books covering the period when the press of the world was resounding with the news of the $5 a day minimum wage and the profit-sharing plan. The scrap-books brought sharply to the writer's attention the fact that the Henry Ford of 1922 does not speak as did the Ford of 1914.

The Ford of 1914 was only a kindly man who was interested in mass production of automobiles and the paying of high wages to his employees. The quality of his kindness shone out in the remark that he "would rather make 20,000 or 30,000 employees happy than to make a few millionaires."

The new Ford is kindly and gentle. But the new Ford pays high wages and shares profits as a matter of routine and habit.

The mind of the new Ford is perhaps more than ever concerned with happiness, but it realizes that happiness can come only through order; therefore the mind of the Ford of today is primarily concerned with order.

Mr. Ford sees the world in great disorder, and his passion of passions is to set it right.

A river that is rolling its way to the sea without working is to Mr. Ford a river in disorder, and he longs to put it in order by making it work. He is positively pained at the spectacle of enough water power going to waste to "run the United States," as he expresses it, including heating, cooking and lighting. He feels as might a good housewife if she were to see a neighbor wasting food, gas and coal while her hungry children were shivering in the darkness.

Mr. Ford believes there should always be work and a good living for everybody who wants to work. That there is not work for everybody is proof to his mind that something is the matter—that the world is in disorder. He would put the world to rights by harness-

ing its natural forces and cutting off its parasites.

Such is the passion that dominates the new Henry Ford—a passion for doing away with unhappiness by doing away with disorder. He thinks no longer in terms of the happiness of his own employees. His thought now goes out not only to all who are living but to all who are yet to live. He knows that if he can harness the Tennessee, the Mississippi and other rivers, great and small, that they will toil for all the generations that are to come. He sweeps the world with his vision and plans with the sure touch of a great builder.

Mr. Ford is a billionaire. Mr. John D. Rockefeller, Jr., has publicly denied that his father is worth a billion. It therefore follows that Mr. Ford is not only the richest man in the world, but the richest man who ever lived. But Mr. Ford is a billionaire only because he sells automobiles and tractors for less than they were ever sold before, and pays the mechanics who make them more than mechanics were ever paid before. He is the only man of tremendous wealth against whom there is no public hostility. On the contrary, he is beloved.

But notwithstanding the fact that Mr. Ford is a billionaire, no man ever cared less for wealth, except as a tool with which to work, or was less changed by having it. Mr. Ford's passion for order overshadows in his mind everything else. If he could harness the rivers of the world and the tides of the Seven Seas, find a way to take the power out of coal by burning it where it lies in the ground, make economic arrangements that would enable everybody to work and to live well from his work—if he could do these things, he would do them all without a penny of compensation, and ask no greater happiness.

And, so far as he can, he intends to do these things.

THE NEW HENRY FORD

I

Mary and William Ford

A GREAT man may have, it would appear, almost any kind of a father, but he must have a great mother.

The world knows little and cares less about Thomas Lincoln, the father, but it clutches at every word about Nancy Hanks, the mother of Abraham Lincoln.

This is because the world knows, both from instinct and from observation, that in the matter of intellect, boys are most likely to resemble their mothers as girls are most likely to resemble their fathers.

This study of Henry Ford will therefore begin with the study of Mary Litogot, his mother.

Mary Litogot, of Dutch descent, was the

daughter of a prosperous farmer and his wife who lived near Dearborn, Michigan, 9 miles west of Detroit. She was born in 1841. When she was 6 years old, she first saw William Ford, an English boy, born near Brandon, Ireland. William Ford had come to America with his father, mother, brothers and sisters and settled near Dearborn. The Fords had been farmers in Ireland and resumed farming in America. At times, William Ford worked for the father of Mary Litogot. He was both industrious and frugal. In a few years, he bought 40 of Mr. Litogot's 240 acres. Fifteen years after William Ford's arrival in America, he and Mary Litogot were married. The next year, on July 30, 1863, their first child was born and named Henry, after an uncle. The mother was then 22 years old and the father 36.

We see in the youth of the mother what an unusual combination of forces produced Henry Ford. The oldest son of a young mother is not usually the most gifted son, tho Lincoln, too, was an exception to the rule. In favorable circumstances, women when they are 35 or 40—or even older—produce their greatest sons. Benjamin Franklin was the son of an old mother, and the youngest of her many sons. Middle-aged women, like men, are intellectually better developed than they are in youth and therefore have greater qualities to transmit to offspring.

We must therefore draw certain inferences to explain Henry Ford's quality. The first inference must be that his mother, at the time of his birth, loved his father more than most women are capable of loving their husbands. Something was sufficient to counterbalance her youth, and

love is the greatest of all forces in the creation of superior human beings.

The mother died at the age of 35. Henry was 13 years old. Five other children had been born—two sons and three daughters.

Mary Ford died when she was so young that Henry Ford is the only one of her children who remembers much about her. Even Mr. Ford is of the opinion that his recollections of his mother are incomplete. They are incomplete. But they are incomplete only because his memory has let go of recollections that signified nothing. The important characteristics of his mother—the characteristics that explain her and explain him—are crystal-clear in his mind.

Henry Ford's mother was great in the things that the world calls little, which are, nevertheless, the only things in the world that are great.

She had great love, first for her husband and, later, for their children.

Henry Ford, in speaking to me of his mother, said: "She was of that rarest type of mothers—one who so loved her children that she did not care whether they loved her. What I mean by this is that she would do whatever she considered necessary for our welfare even if she thereby temporarily lost our good will."

Mrs. Ford once temporarily lost Henry's affection by interfering with the gratification of his appetite for cake. It was the only time in his life that he was ever ill. His mother discovered what had upset him. Inquiry developed the fact that he had been trading the good bread and butter with which his mother filled his dinner pail for another boy's cake. The mother told him to keep his bread and

butter and let the other boy's cake alone. Henry wanted to keep on trading.

"But I had to mind," said Mr. Ford. "When mother made up her mind to anything, she never stopped until she had accomplished her purpose. It is a good thing she did make me mind, too. That other boy and his whole family have been dead for years."

Henry Ford's mother had a great sense of order. Order, to a housewife, means, among other things, cleanliness. Her house was clean and the things in it were in place. Henry Ford's factories are clean and the things in them are in place. He says that a dirty factory attracts poor workmen, tends to demoralize those who would otherwise be good, and invites bankruptcy.

See how great was Mr. Ford's little Dutch mother's sense of order. All she

could do with this sense was to apply it in her home—and put it into the blood of her eldest son!

Mary Ford was kind and gentle. She had a heart. She never lived to know what her great heart was to mean to the world. From some far star she may have looked down upon the automobile plant at Highland Park when men's wages were doubled over night, and humble floor-sweepers first drew $5 a day. How proud a mother can be of a worthy son only a mother may know.

Mr. Ford says that his wife and his son's wife are the same type of women as his mother.

"My mother had a mind of her own," he said, "but she would have had no respect for a man who permitted his wife to rule him. I often consult with my wife with regard to business affairs because I know

her judgment is good, and many times take her advice. But I am always the one to decide what I shall do."

William Ford, father of Henry, lived to be 79 years old. He had inherited the remaining 200 acres of his father-in-law's farm and was, therefore, throughout life, in comfortable circumstances. He was a good, honest, up-standing farmer, with all the virtues of good citizenship, but with none of the daring that has led his eldest son so far. William Ford was content to be a warden in the village church, to till his farm and to live in peace. To him, a bird in hand always seemed to be worth a good many in the bush.

"Father thought I was an awful fool," said Henry Ford, "to quit a job at which I was getting $135 a month to build automobiles. And after I quit the job, he used to tell me that I should hurry and build

my automobiles or everyone who wanted one would be supplied before I got started. We were building 100 cars a day in 1907 when father died."

The old Ford home stands to-day just as it did when Henry Ford's little Dutch mother lived in it with her children. In out of the way places, here and there, Mr. Ford has picked up duplicates of the various articles that were in the house in the long ago. Furniture, carpets, dishes, lamps and pictures have been restored. And in the carpenter shop, down by the barn, is an old two-cranked boring machine and other carpenter's tools like the ones that Henry Ford's father used. If Mr. Ford's parent could come back, they might not be able to realize at first that they had been away.

II

Henry Ford's Boyhood

HENRY FORD, at the age of 5½ years, began school on January 11, 1871. On that day he put the date in his childish memory, where it remains after a lapse of more than 50 years.

No other fact need be told to enable one to realize that Henry Ford was an unusual boy. One might travel around the world without finding half a dozen persons more than 50 years of age who could tell the exact date upon which they began school.

The name of his first teacher was John Brainard Chapman. Mr. Chapman is dead, but his picture is in Mr. Ford's office.

The school, which was near Dearborn, was known as the Scotch Settlement School. The building, a little old-fashioned, one-story affair, is still standing.

Henry Ford went to the Scotch Settlement School three years, walking 2½ miles each morning and night, carrying his dinner in a pail. After that, he walked about the same distance to another school which he attended until he was 16.

During this period, the lad discovered what was then his favorite book. It was *Herbert Mattison, A Bound Boy.* The hero had been "bound out" by his father to work for a neighbor until he was 21 years of age. This was a common thing in America 50 years ago, the boy who was "bound out" usually receiving for his labor only his board and clothing and a small amount of money.

Henry Ford had been going to the lit-

tle country school but a few years when began in his mind the rumble of mechanics that has never ceased. At the age of 13, he caught his first vision of the automobile. It was but a fleeting vision, yet it was clear.

"I remember well," said Mr. Ford, "saying to John Flower, a little boy who owned a tricycle upon which he used to let me ride, that if we could only attach an engine to the tricycle it could drive itself. I was then 13 years old."

About the same time, the lad for the first time saw and read a scientific journal. It was called *The World of Science,* and was published in London.

Mr. Ford's interest in the improvement of water power began when he was 13. The same interest that flamed out almost half a century later at Muscle Shoals.

"I built a dam across a little stream near

our house," he said, "and backed the creek up until there was enough fall to run a water wheel. I attached a rake handle to the wheel as a shaft, and at the other end of the shaft had a coffee grinder in which I ground dirt."

Mr. Ford stopped to laugh.

"John Miller, a neighbor, came over to our house pretty soon," he continued, "to complain that my dam had flooded his cellar which was full of potatoes."

From water power, the boy's mind turned to clocks and watches. He was seized with a fierce desire to know everything about timepieces.

"Only a little while ago," said Mr. Ford, "I was in the old barn in which I first took a watch apart."

Asked if he had any difficulty in putting the watch together, he replied:

"No, I knew what each wheel was for

as soon as I saw it. It was as easy to put the watch together as it was to take it apart."

The next thing that William Ford knew, his son Henry was repairing watches and clocks for a few nearby neighbors, charging nothing for his work. That was all right. A watch-maker, of course, had to have tools, but one of his mother's knitting-needles was made into a screw-driver, while a piece of an old watch-spring served admirably as tweezers. Mr. Ford, by the way, still has the screw-driver that he made from his mother's knitting-needle.

But there came a time when William Ford was not so well pleased that his eldest son had become clock and watch repairer for the whole neighborhood. The elder Ford's dissatisfaction arose from the fact that the boy still continued to charge nothing for his work, tho the excellence of

his craftsmanship had caused his business to extend for many miles around. People said that when Henry Ford fixed a watch or a clock that the job was done right, and William Ford thought that if the boy was so good a mechanic, he was good enough to be paid for his work. William Ford was the kind of a man who always gave and demanded exact justice, hence his insistence that the laborer, in this case, was worthy of his hire.

Of course the neighbors were willing to let the matter run along as it was going, and as it happened, Henry also was willing. What he most wanted was not money but the fun of repairing clocks and watches —the work was fun to him. Many a time, after walking 2½ miles to and from school, he would walk 9 miles to and from Detroit to buy springs and other little things with which to repair neighbors' timepieces.

Finally, Henry Ford's father could stand it no longer and forbade the boy to go out nights to do free work. Henry was working hard all day on the farm in summer, and the father felt that he needed his rest.

"I couldn't quit," said Mr. Ford, "so I used to go to my room at 9 o'clock at night and wait until I thought my father had gone to sleep. Then I used to creep out of the house, go to the barn, saddle a horse and ride away—sometimes many miles—to a place where I knew there was a watch or a clock to repair. Many a time I did not get home until 3 o'clock in the morning. Yes, I always worked on the farm the next day, just the same. The loss of sleep did not seem to hurt me any."

Mr. Ford did not tell me the incident that follows, but it was told to me in Dearborn.

Henry Ford's Birthplace

The House That Ford Built When He Was Married

Ford's Present Home on His Father's Old Farm

The story is that Henry went out one night on his father's best horse to repair a clock several miles away, the father, as usual, being unaware of his absence. The job lasted until long after midnight. It was in the spring of the year and all the streams were running high. To make matters worse, it rained during the night while the lad was at work. The result was that a small bridge, over which boy and horse, outward bound, had passed in safety, was washed away during the evening. When the return journey was made, the bridge being gone, the boy and horse tumbled into the stream. William Ford's best horse and his eldest son were in imminent danger of broken legs, if not death by drowning; but Fate brought them through, wet but unhurt.

Watches have always possessed a strong fascination for Mr. Ford. One day while

he was giving me material for this book the 12 o'clock whistle blew. Mr. Ford looked at his watch. "It is just right," he said. I mentioned that my watch had just been cleaned but gained 7 minutes a day, notwithstanding the fact that the regulator was at the extreme "slow" side. "Let me see it," he said. He took the watch, opened it quickly, peered into the works with a magnifying glass and told me what was the matter with it.

"I have always been interested in watches," said Mr. Ford. "I have half a bushel of watches that I have bought from time to time, just to go through them, see how they are made and observe how the workmanship differs. When I was a young man, working in a machine shop, I once had an idea of making a standardized watch on a big scale. I figured that by making 2,000 watches a day I could make

them for 37 cents each and sell them at 50 cents each. That was before the day of cheap watches."

Henry Ford's boyhood on his father's farm passed like the shadow of a flying cloud over a field. It was a busy boyhood —a period in which he was a student in school, a farm-worker and a dreaming mechanic who worked to make his dreams come true. William Ford wished his son to be a farmer, and tho Henry did not like farmwork, he worked hard at it. But his heart was always in his mechanical pursuits, which his father detested, because he realized that they were leading the lad away from the country. The boy, while going to school winters and working on the farm summers, contrived to make himself a little workshop in which he toiled nights. He had a forge, a bowstring-driven lathe, a vise and enough small tools

to enable him to do almost any kind of repairing that came to hand. But he worked with his tools always against the wishes of his father.

Thus for a time the struggle went on between the father's will and the son's determination. One day, when the boy was 16, the struggle ended. The mother had died three years before, the old home did not seem the same, and the call of the city silenced everything else in the boy's heart. Without saying a word to anyone, he walked 9 miles to Detroit, rented a room in which to sleep, and sought employment in a machine shop.

III

Learning a Trade

HENRY FORD'S first feat in financiering was performed the day after he walked to Detroit from his father's farm. He quickly found employment as an apprentice in Flower Brothers' Machine Shop at a weekly wage of $2.50, but his board and room were to cost him $3.50 a week. The lad solved the problem by finding an opportunity to work four hours each evening for a jeweler named McGill, who had a little place at Baker and Twentieth streets. After working 10 hours a day in a machine shop, the boy worked from 7 to 11 each evening repairing clocks and watches, for which he received $2 a week.

The average boy would consider this a dog's life. To Henry Ford it was the realization of his fondest dreams. At last he was in machinery, up to his ears, night and day. The rumble that was to dominate his life was becoming real—the rumble that he had first heard in little more than fancy on his father's farm; the rumble that in 1922 has grown to a great clashing of metals moved by 60,000 horsepower engines at Highland Park, with a sound like distant thunder that forecasts a million horsepower at Muscle Shoals, or on the Mississippi!

The boy literally revelled in his opportunities to learn about machinery. In both shops he received wages for his work, but in neither shop did he work for wages. If he could have lived for nothing, he would have been glad to work for nothing. What he wanted was information and ex-

perience. The machine shop and the watch shop gave him both. They gave him also an opportunity to talk with men from whom he could learn. The boy was always eager to talk with any machinist whose joy in his work revealed him to the lad as one from whom he might learn something. The days passed like minutes and the evenings flew like seconds. The lad was never tired and the time to go to work never came too early in the morning.

This sounds like exaggeration. It is not. It is the exact truth. The lad's passion for learning was so great that it overshadowed every other passion of his life. It was not that he had no other longings. He had the usual equipment of boyish desires. He was a normal boy—plus; a normal boy to whom was added an entirely abnormal thirst for mechanical knowledge. Anyone who may believe that Henry Ford was

never a boy should consult Thomas A. Edison. Edison says that Ford is a boy yet—a manufacturer first, a business man second, a farmer third and a boy next. Mr. Edison described Mr. Ford to me in these very words.

"You should see Ford when we are out on our vacations," said Mr. Edison. "There was never anyone like him. He is cutting up capers all the time. He runs, jumps, climbs trees, chops logs, hollers and yells. At heart Ford is just a boy yet. He will never cease to be a boy. The spirit of boyhood is in him to stay."

Henry Ford, as a boy, was always playing because his work to him was play. In whatever he did he was really playing the game of acquiring knowledge with regard to machinery and mechanical principles. We see this in a move that he made after he had worked 9 months in Flower

Brothers' Machine Shop. Although his wages had been increased to $3 a week, he quit the job and went to work for the Dry Dock Engine Company at 50 cents less a week because he felt that he had learned all he could where he was and might pick up something new in a shop where marine engines were built. The fact that he thereby lost 50 cents a week meant nothing to him as, with the watch job, he could still earn $4.50 a week, whereas his board and lodging cost but $3.50. Henry Ford, with $4.50 a week, in his pocket with which to pay $3.50 of expenses, felt in as comfortable circumstances as did Walt Whitman when, having received $20, he wrote to a friend that he now had "plenty of money."

An incident of Henry Ford's boyhood days with the Dry Dock Engine Company was recalled during the World War.

When the United States Government asked Mr. Ford to build eagle boats, he sent for Mr. Frank E. Kirby, still the head of the Dry Dock Engine Company, and, in the opinion of Mr. Ford, the greatest ship-builder in the world.

"Mr. Kirby," said Mr. Ford, "I worked for you a short time when I was a boy. I recall now something that you told me then. You came along one day when I was wheeling a heavy load up a steep gangplank into a ship. I was having a hard time of it to keep my feet, and you stopped long enough to say, 'Stick in your toe-nails, boy, and you will make it.' Well, I have been sticking in my toe-nails ever since."

Henry Ford worked for the Dry Dock Engine Company two years. Again the call came to him from within to move. The time had come when his lust for

learning was not being satisfied, because he had absorbed all that the shops in which he was working had to give. He was only 19 years old, but he felt that he had mastered every part of the machinist's trade that was practised in the Dry Dock Engine Company's works.

The late Collis P. Huntington, one-time Pacific railway magnate, once said that nobody could track him through life by the quarters he had dropped. It would be quite easy to track Mr. Ford through life by the steam and gasoline engines around which he has worked. Having mastered the trade of making engines, Henry Ford's thirst for experience caused him to seek employment at installing, repairing and instructing others how to run steam engines.

In Detroit at that time was John Cheeney, State agent for the Westinghouse

portable steam engines, built at Schenectady, N. Y. From Mr. Cheeney Ford obtained a job as "road expert." The company made little engines ranging from 10 to 20 horsepower. Henry Ford's job was to install the engines for farm use, to set them going, and to teach farmers how to operate them. Part of his task was also to answer the calls of farmers whose engines were in need of repairs.

This sort of life exactly suited the stage of development that Henry Ford had then reached. His nature called for plenty of action and his duties gave it to him. He was up in the morning with the sun and away to work. With no thought of the passing time, he was still at work when the sun went down. Henry Ford is fond of all machinery, but it seems as if there were some sort of a subtle bond between him and any kind of an engine—a bond

that causes him to like an engine better than any other machine. It sometimes seems as if this bond enables engines to understand him and to cease "cutting capers" when he is around.

As an illustration of this uncanny connection between Henry Ford and engines, Mr. Frederick F. Ingram, a Detroit manufacturer, related to me the following incident. Mr. Ingram had installed in his factory a new engine. When the experts had finished their job the engine would not go. They fiddled and fussed, but the engine remained still.

Mr. Ingram was in a predicament. He had paid for power, but could not get it. Then a thought came to him. He had been for some years a member of the Detroit Public Lighting Commission, and during this term of service had come enough into touch with things electrical to know that

the Edison company had a very resourceful engineer of whom Alexander Dow, the manager, sometimes boasted a little. Mr. Ingram called up Mr. Dow and asked him if he would send out his engineer to see if he could start the engine.

"In a little while," said Mr. Ingram, "a slim, wiry man came out to my place. He said his name was Ford. I shall never forget the occasion as long as I live. Ford stood around a minute or two while we told him of our troubles with the balky engine. He walked around it once or twice and maybe fussed with it a little. Then he walked up to the throttle, turned on the steam and away it went. I was astounded and asked him what he had done. He replied that he had done nothing. I paid him $10 and he went away. It seems funny now, doesn't it, to think

that I once paid Henry Ford $10 for fixing an engine?"

Henry Ford's job as a "road expert" occupied his time only during the summer; for some reason, nobody bought or had engines installed in the winter. Ford held the job two years, but each winter he went back to his little machine shop on the farm and worked at white heat to invent and build a farm tractor.

Fancy a youth in his twentieth and twenty-first years engaged at such a task!

No farmer had ever told Ford that he wanted a tractor. Gasoline engines were still unknown. But Ford's passion for utility and economy, strong even then, simply could not tolerate a team of horses as a power plant. Horses ate their heads off in winter in order that they might do a few days' work in summer, and were not much good for plowing, anyway.

Such were the views of Henry Ford at the age of 20; and while nobody on earth encouraged him to go on, he persisted in his efforts to contrive a mechanism that would plow tremendously and eat nothing except when it was at work. Only he did not call the thing upon which he labored a "tractor"—it was to be a "farm locomotive."

Henry Ford's father had an old mowing machine that had outlived its usefulness, and the big cast-iron wheels of this machine were pressed into service. In his little country machine shop Ford managed to make a pattern and cast a cylinder for the steam engine that was to drive the "locomotive." Whoever knows nothing about pattern-making and casting will pass over this statement without much thought. But let any such reader try to make a pattern and cast a cylinder and he will under-

stand more about the difficulties that Henry Ford surmounted when he was 20 years old.

The engine had but one cylinder. The bore was 3 inches and the stroke 3¾ inches. Steam was supplied by an upright, tubular boiler. The fuel was wood.

"I thought this engine would plow a whole farm in a short time," said Mr. Ford, smiling. "As a matter of fact, it ran the tractor about 40 feet and stopped. It stopped because of lack of steam. I could not generate steam rapidly enough to keep the engine going when it was at work."

It seems proper at this time to call attention to a fact about human nature that should give humanity reason to hope greatly. This is the fact: The imagination of the greatest inventor falls so far short of what it is possible for human beings to do that the greatest of them, when

they begin a thing, can not do more than produce a rude caricature of what they will ultimately create.

Thomas A. Edison once said to me: "I always play my blue chips first. I try to think of the biggest thing I can do and then set about to do it." Yet the first incandescent electric light that Edison made was little more than a dying glow-worm, and the first phonograph he made was but a tin-foil-covered cylinder that to-day could not be sold at any price except as a curiosity. Edison "played his blue chips" in each instance, but the tremendous value of his work lay in the profound principles of natural law that he discovered, rather than in the excellence of his creations which, at first, were crude, as all inventions must be.

So it was with Henry Ford's tractor that ran 40 feet and stopped. It represented

the best that Ford could do at the time. And, while the ordinary boy would have been discouraged because it ran 40 feet and stopped, Ford was delighted because it ran 40 feet before it stopped. He reasoned that if a tractor had been made that could run 40 feet, it would ultimately be possible to make one that, with a little help from steamships, could run around the world. But the internal combustion engine had first to be evolved before Ford or anybody else could build such a tractor —and when the engine came Ford brought forth the tractor.

The point is—and it has been exemplified by Edison, Ford and all other great inventors—that it is possible for human beings to do vastly more than even the most daring thinkers believe we can do. When Edison thought of the phonograph, the greatest thing he could think of was a

little tin-foil affair. Ford "plunged" on his first tractor—and went 40 feet. Each of these men has, in comparison with the rest of us, a tremendous imagination, yet neither of them, at first, had more than the faintest idea of how much it was possible to accomplish. Men and women sometimes talk about what a splendid world this will some time be in which to live. Yet observation should teach us that the civilization that awaits us will be as much finer than the world that dreamers talk about as the best phonograph and the best tractor are finer than Edison's first talking machine and Ford's first "farm locomotive."

Right here came a point in Mr. Ford's life that, if he had been a youth of weaker purpose might have wrecked him. His father gave him 40 acres of land. It was a bait to get the young man back to the

country. William Ford did not want his son to be a factory worker in a city. It seemed so foolish to the father, when the son might as well enjoy the free, independent life of the farmer.

Henry Ford returned to the country. It may have seemed to his father and to the neighbors that he had turned away from his first love—machinery—to follow in the footsteps of his ancestors. It did not, however, seem so to Henry. He returned to the land, but he did not take up agriculture. The land was mostly wooded. He spent the winters cutting the trees and converting them into lumber. He bought a circular saw-mill and rented a 12-horse-power engine to drive it. Maple, beech, basswood and oak fell before his ax. Lumber came from the mill and was sold. Spring put an end to lumbering. But with the coming of the first spring on the

farm, farming did not begin. Instead, Ford obtained employment with the Buckeye Harvester Company, setting up and repairing farm engines.

Three years had passed in this way when Mr. Ford, in 1887, and in the twenty-fourth year of his age, was married to Miss Clara Bryant, who was born and reared in Greenfield township, near Dearborn. Ford sawed lumber and built a house 31 feet square and a story and a half high. Into this house the young couple moved, Mr. Ford at the same time moving his machine shop from his father's farm to his own.

Edsel Bryant Ford, only child of Mr. and Mrs. Ford, was born on November 6, 1893. He was named after one of Henry Ford's seatmates in the old country school.

IV

The First "Ford"

ONE Sunday afternoon, in the summer of 1889, Henry Ford began to draw on a sheet of paper his idea of a "mechanical buggy." The piece of paper proved too small and Mrs. Ford brought him a sheet of music, the back of which was blank. On the back of this sheet of music he sketched out the plan of a vehicle that was to propel itself and carry passengers. Twenty years later, Mrs. Ford said she would give almost any sum of money to recover this paper. But it is apparently lost forever.

In his little workshop, near the house that he built on his farm, Mr. Ford began to make his first automobile, tho at that

time the word "automobile" had not been made. The age of gasoline had not yet come, so a single-cylinder steam engine was made, two-inch bore and a two-inch stroke. The engine was bolted to the bottom of an ordinary buggy and connected with the rear wheels by means of a belt from the engine to a shaft on which was a sprocket wheel, a chain from which drove the differential gear.

This was simple enough. A Frenchman named Cugnot had done as much in 1769. But what stuck the Frenchman and what was yet to stick Henry Ford was the problem of how to generate steam rapidly enough to keep the engine going. The steam pressure must be high-ranging from 250 to 400 pounds to the square inch —and the generation of steam must be continuous and fast. Mr. Ford tried every kind of a boiler but none would meet the

requirements. He was eventually compelled to acknowledge defeat, and his first automobile was abandoned without ever having been started. He had been baffled by what, even in the light of present knowledge, is impossible, which is the generation of sufficient steam to run an automobile by the burning of wood or coal under a boiler.

Mr. Edison says that when in the progress of his experiments he "gets up against a stone wall" he turns to other things to rest his mind before resuming the attack. Mr. Ford, having failed to make his first automobile go, also turned aside to do other things. He went to work for the Detroit Edison Illuminating Company as night fireman and engineer at the Willis Avenue sub-station, working 12 hours a night for $35 a month.

This is but one of the many instances

that will be given of the manner in which instinct so often leads Mr. Ford, straight as an arrow travels, to a correct conclusion. If he had continued to wring his brain for ideas after it was dry he could not have made his "mechanical buggy" go and he might have broken his faith in himself and ceased trying to be an inventor. Mr. Edison could have told him why he should stop for a time and turn to other things. A psychologist could have told him how the subconscious mind works when the conscious mind is resting; how ideas flow into it as water flows into and accumulates in a well after pumping has ceased. Nobody told Mr. Ford to do the right thing, but he did it.

Before beginning the writing of this book I went to see some of the men with whom Mr. Ford worked when he was an engineer for the Detroit Edison Company.

The thing that most impresses one with the amazing suddenness with which Ford has risen to the world's pinnacle of wealth is to realize that the men are still in harness and in full vigor who worked with him when he was poor. Mr. Alexander Dow is still the manager of the Edison Company. After Mr. Dow had talked to me about the old days, I asked him if he had hired Mr. Ford and he replied that he had not. I expressed my disappointment and said I wished I might have seen the man who hired the future billionaire.

"Right there is the man who hired him," said Mr. Dow, pointing to a man beside him with whom I had also been talking.

"So you hired Ford," I said, turning to Mr. John R. Wilde, a man in his fifties, who now occupies Ford's old position as chief engineer of the Edison Company.

"Yes," he replied, "I hired Henry. He

had been at me for a job for quite a while, but I had nothing to give him until the vacancy came at the Willis Avenue sub-station. I had known him since we both worked in Flower Brothers' Machine Shops. We did not work in the same shop, but we soon became acquainted and were friends. Henry was always a nice fellow. He was quiet and serious sometimes, yet always good-natured. I think the thing that I recall most distinctly about him was that he was always deeply interested in his work. He seemed to be anxious to learn all that he could."

"Henry has changed less than almost any man I know," said Mr. Dow. "He is older, of course, and his hair is getting gray, but in the main he is much the same as he was when he came to work for us more than thirty years ago."

In passing, it is interesting to note the

different names and titles by which Mr. Ford is called. The companions of his boyhood and early manhood call him "Henry." James Couzens calls him "H. F.," an abbreviation that is used, for the most part, by the higher-ups among his business associates, tho it is sometimes used by business men and politicians in New York and Washington. Edison calls him "Ford." Edison, in his own laboratory, is seldom referred to as anything but "the old man"—which is a term of genuine endearment—while Mr. Ford in his offices is referred to in the same way as "the boss."

"Henry used to get 'set' when he was a young man just as he does now," continued Mr. Dow. "I mean he would get his mind running on something and think of it to the exclusion of everything else for a while. We soon realized, after he came

with us, that he was a very unusual young man, and brought him down from the Willis Avenue sub-station to the main plant, where he later became chief engineer. He was very resourceful. We found this out in the course of some repairs that we were making. I recall that in putting in some new boilers we ran into a great pocket of quicksand. The foundations of our engines began to give way. Henry kept those engines running on wedges for six weeks. As the foundations of the engines sank into the quicksand he would drive the wedges in a little more, day by day. He was very ingenious in everything. Long before he left we were paying him the maximum salary for his position, which, as I recall, was $135 a month."

Among the many Ford stories going around Detroit, most of which are wholly

untrue and the remainder only partly true, is one to the effect that Alexander Dow has an old diary containing this entry: "Told Henry Ford to-day that he would have to quit trying to invent a horseless carriage or I would discharge him."

Before I saw Mr. Dow I had asked Mr. Ford about the story and he said there was little to it except that Mr. Dow had asked him to work on an electric instead of a gasoline automobile. Mr. Dow, when questioned about the yarn, laughed and said:

"All there is to that story is this: For years I have kept notes about company affairs. Occasionally, I go through them and destroy the older ones. About ten years ago I was sorting them over and came upon the one that is referred to in this story. It seemed funny then and I told some of my friends about it. But

the memorandum did not say that I had threatened to discharge Henry. I never thought of such a thing. Henry was too valuable a man to discharge. The entry in my note-book merely said that I had had a talk with Henry that day as to what part he cared to play in some big plans that we were about to carry out. We were planning some big extensions that would have meant a bigger job for Henry. On the other hand, I knew that he was giving a great deal of thought to the gasoline automobile that he was trying to make. Why, he made his first gasoline car right here in our shop on company time and I never objected to it. But I knew the extensions we were about to make would so increase his duties as to take all of his time. I simply wanted Henry to know what we were planning so that he could make his plans accordingly. But there was no

threat to discharge him nor any time limit set, before which he must decide. The talk was entirely friendly. Months afterward Henry came to me and told me that he had decided he wanted to put in all of his time on his automobile. He resigned and I was sorry to see him go, tho it is a good thing for the world that he did so; and, of course, for himself, too."

What had produced Mr. Dow's state of mind was this: When Ford went to work for the Edison Company, he moved from his Dearborn farm to 58 Bagley Street, Detroit, and brought his workshop tools with him. In a little brick barn back of the house he set up his new shop. Only a few months had passed when something happened that set Ford's mind to going on automobiles again, and thereafter most of his nights were spent in the little brick barn. This was in 1891.

V

The First Gasoline "Ford"

THE thing that set Ford's mind to running on automobiles again was the sight of a low-speed gasoline engine that he saw running in a bottling works. He had had his troubles with steam boilers on his farm locomotive and mechanical buggy, and his mind was in condition to receive the message that gasoline was the thing with which to run an automobile.

There was no rest for him after that. He had his work to do for the Edison Company, and did it, which left him none of his days. But far into every night he worked on his new car. Often it was 3 or 4 o'clock in the morning before he left the little brick barn.

Mr. Ford's capacity for work always has been and still is little less than marvelous. He seems never to become tired. He will ride all night and all day in his private railway car until everybody who is traveling with him is thoroughly tired out and then, arriving at Dearborn, a little after noon, jump into an automobile, rush to one of his plants, and put in four or five hours watching the removal of an engine, perhaps, or something else in which he is interested. The word "rush" in connection with Ford's automobile riding is used correctly. In the country he seldom drives less than 60 miles an hour and often beats the fast trains. In the outskirts of Detroit, he drives 40 miles an hour.

The building of Ford's first gasoline car was perhaps one of the most difficult tasks of his life. It was particularly hard because he had to make everything himself.

High-speed gasoline engines were unknown. He had not only to invent but to manufacture as he went along. Whatever was required had to be made with his own hands in his workshop.

As Ford entered upon the second year of his work, the neighbors, all of whom knew he was working every night on a "horseless carriage," began to call him crazy. There are stories told in Detroit that even Mrs. Ford often tired of the long vigil and begged him to abandon the task. These stories are untrue. Mrs. Ford was always "the believer"—that is what Mr. Ford still calls her. From the first, she has always believed he could do whatever he set out to do. When he was building his first gasoline car, working far into each night to conquer unparalleled difficulties, Mrs. Ford oftentimes went out into the shop and watched him work a

while in the evening, but she encouraged him to go on rather than urged him to stop.

As a matter of fact, Ford was never in danger of becoming discouraged.

"I was never discouraged in my life," said he to me one day while this book was being written. "Discouragement comes from fear and haste. Fear is the great canker that eats at the hearts of men. Most men are entirely too confident of their ability to fail—and they fail. If they were as confident of their ability to succeed, most of them would succeed. No man can think straight when he is scared to death. Clear thought comes to those who believe in themselves and the things they are trying to do.

"What the world needs is more faith. We haven't half enough of it. We are always saying, 'I can't,' when we should be

saying, 'I'll try and I'll never stop until I succeed.' All of the things we are failing to do and a million others will be done some day. Why not do more of these things now? Here we are, living in a world that is the finest piece of raw material that ever was, and most of the time we are feeling sorry for ourselves because of our hard lives. That is not the way to go about it. We should proceed to improve whatever is not now good enough to suit us. The world will be improved a lot before it is finished. Some people seem to think it is finished now. Instead, it has hardly been begun. The world of today bears about the same relationship to the world that will yet be that the first automobile bears to the best machine now on the market."

When relating the events of his earlier

years, Mr. Ford often drifted off into these little philosophical excursions.

"Haste is also a great maker of discouragement," he continued. "Now why should anybody be in such a hurry to accomplish what he sets out to do? He should work diligently, of course, but why should he be discouraged if success be somewhat delayed? The idea of human beings in a hurry always seemed a little absurd to me, considering the fact that there is an eternity behind us and ahead of us. It was nearly 12 years from the time that I built my first car before I put one on the market.

"These were very useful years to me and very well employed. What better use could I have made of my time? So far as I was concerned, I was never happier in my life. I was learning something every day and what I was learning was of

use to myself and everybody else. I did not get much sleep, of course, but I was then, as always, in fine health and never felt tired. People think Mr. Edison is a wonderful man because he does with so little sleep. I think he is a wonderful man because he is able to generate so much interest in his work. Anybody who is deeply interested in his work does not become sleepy very easily, and he does not become tired. It is work done against the will that wears. Or work done merely for wages. Wages are necessary, of course, but mere wages are not enough to keep anybody awake or prevent him from becoming weary. I never gave a thought to wages in my life. All I ever sought was the kind of work I wanted to do and the best place in which I could learn to do it."

Out of this philosophy came, step by

step, the first Ford gasoline engine. It had two four-cycle cylinders, bore 2 9/16 inches, stroke 6 inches. The wheels were 28 inches in diameter, wire-spoked and solid rubber-tired. The wheelbase was 60 inches and the gauge 42 inches. The engine was water-cooled. Power was applied with a belt from the engine.

The car was finished at 3 o'clock in the morning. Mr. Ford at once took it out for a spin. He did not spin very far—just to the end of the street.

I asked him if it was true that he could not turn around.

He put on a very sheepish smile. "Yes, I could turn," he replied, "but I could not back up. I had to get out and lift the rear end around."

But the car would run and that was the main thing. It would make 25 or 30 miles an hour. And it would make noise. Some

of the neighbors did not like to be awakened at 2 or 3 o'clock in the morning by the heavy explosions of the Ford engine. But William C. Maybury was then Mayor of Detroit, and he was both a kindly man and a friend of Ford.

"Maybury told me," said Ford, "that he would protect me if a complaint were made against me."

This was the first automobile license issued in America. It was verbal and it was irregular, but it answered the purpose.

Ford had devoted two years to the building of his first gasoline car when, in 1893, it was completed. What he produced represented a great advance over his attempt to build a steam car. He had made a relatively high-speed gasoline engine that would drive a light buggy 25 or

30 miles an hour. But an automobile that could not be backed up had no commercial value.

Ford took another two years to think and in 1895 began a new car.

VI

Success in Sight

HENRY FORD was 30 years old when he began building his second gasoline car, a task that occupied his nights from 1895 to 1898, while working days for the Detroit Edison Company.

It is interesting at this point to note how his achievements and his prospects might have been regarded at that time by a weak-willed man and a money-hungry man; also, how they were regarded by Henry Ford.

A weak-willed man, if he had been in Ford's place, might have said: "I built a farm locomotive that went 40 feet and stopped. I started a mechanical buggy that I never finished because I became convinced that steam generated by wood or

coal was not the proper thing to use for motive power. I made a gasoline automobile that would run forward but not backward and therefore could not be used or sold. I have wasted 10 years of my life trying to do things that can't be done, and I am going to quit and go back to the farm."

A money-hungry young man, if he had been in Ford's place, might have said: "I am within sight of great riches. My gasoline car, tho it can not be run backward and is therefore no good, nevertheless represents a great advance over the old farm locomotive. All I have to do is to perfect this gasoline car and I shall have a fortune in my grasp."

All that Henry Ford thought was this:

"The thing can be done. I am doing it. I shall keep at it."

I asked him if he ever thought of money

either at this time or at any other time before great wealth really began to roll in upon him.

"I never thought of money at any time," replied Mr. Ford. "All I thought of was making an automobile and making it as good as I could. Nobody who is willing to get money legitimately need think about money. Let him make something useful, better than anybody ever made it before, and make it in quantity and money will come to him. It is only the people who want to get money without earning it who need think about it. I could have made money in a good many other ways than the way in which I did. I thought once of going into the watch-making business on a big scale, and I am sure I could have made a fortune at it.

"Right now there are thousands of opportunities to make fortunes. People don't

see them; that is all. Let anybody who wants money to come to him take the simplest useful thing he can think of; let him study it, improve it and refine it until it is better than anybody ever made it before. Then let him manufacture it on a big scale and money will come to him.

"Thinking about money really interferes with one's efficiency. If a man is doing work worth while, the thing he is at requires all his brain-power. When my problem was how to make the mechanism of an automobile, do you think I would have been as efficient if I had complicated this problem with money? To have done so would have reduced my capacity for achievement just as an engine's capacity for work is reduced by mixing a little water with the gasoline. Mechanics and money don't mix. Money mixes with

nothing that is worth doing. The right way to get money, therefore, is not to try to get it. Money, when it comes, should come as an incident to something else—as the result of doing something useful.

"One of the reasons why American business men, as a class, are not as efficient as they might be is because they think first of profits and next of service. They are adulterating their own mental gasoline with water. They should not think of profits at all. They should concentrate every particle of brain-power they have upon the problem of how to do the things they are doing in the best possible way. And let no man believe that the way he is doing is the best possible way. Nothing is being done in the best way. Do you believe the automobile has evolved to the point of perfection? Well, it hasn't. The best automobile is still a very crude affair.

The evolution of the automobile is in its infancy.

"If American manufacturers and business men generally would, for a period of five years, cease thinking of profits and devote all of their energies to giving the greatest values and the best possible service to the public, they would make more money and they would revolutionize American business.

"Employers tell workingmen not to watch the clock. Employers do not seem to realize that it is just as foolish for them to watch their profits as it is for workingmen to watch the clock. Nor do they seem to know that it is often possible to make money by selling below cost. In the early days, I sold my car below cost. What was the result? The increased volume of business reduced cost and gave us a profit.

"Too high a price kills many a profit. The great art of price-fixing is to hit the figure that will bring out the maximum demand, drive to the minimum the cost of production and still show a margin. If the margin is too large it is a sure sign that the price is still too high. I have cut the price of my car from the first, and during the last year have cut it four times. I have also cut the price of the tractor, again and again. I remember that when I cut the price of the car a year ago, one of our men told me that the price I had decided upon was below cost. 'Just for that,' I said, 'I will take off $10 more'—and I did; and I have cut the price two or three times since. If I hadn't cut prices as I did, a relatively small factory would have been large enough for us yet. Before I get through, I intend to make automobiles, trucks and tractors so cheaply

that people will come and take them away."

It is hard to keep Ford's mind on the past—even his own past. The present and the future are the only periods that interest him. During the months that I spent at his Dearborn plant, he would often drop in toward evening in the office in which I was working to talk. I would begin with a question about some period in his past. This was during the winter and the nights came on early. Two hours later I might realize that darkness had come; that we were sitting in semi-darkness looking out on a little lake, frozen over except in the middle where an intermittent geyser of boiling water from the engines kept the ice melted—and that he had been talking almost all of the two hours on other things than the subject with which we began.

Ford's second gasoline car upon which

he worked three years was larger and better in every way than the first one—and it could be reversed. The wheelbase was increased from 60 to 84 inches. It had a two-cylinder, four-cycle engine, four-inch stroke and pistons of four inches in diameter. The engine was water-cooled. The wheels had wire spokes and rubber tires. The car was tried out in 1898 and showed that it was a real car, in the sense that it could be controlled and could travel.

Ford felt that it was time to quit the Edison Company and put all his time on his automobile. His father advised him to stick to his $135 a month job. Henry Ford, believing at last that his hour had struck, flung caution to the winds and told Alexander Dow, manager of the Edison Company, that he was through.

VII

"A Bad Beginning——"

IF "a bad beginning makes a good ending," Henry Ford did well by organizing, immediately after he left the Edison Company, the Detroit Automobile Company. The situation in which he found himself proved uncongenial from the start. He had but one-sixth of the company's $50,000 of capital stock and a salary as chief engineer of $100 a month. After the concern had built two cars, one of which was a delivery wagon, Ford sold his stock and resigned his position.

It fell to the lowly delivery wagon, however, to write an important chapter in the motor world's history. That chapter appeared in a Detroit Sunday paper early in March, 1900. It did not appear as

news but as a Sunday "feature" in what would now be called the "magazine section." What had happened was that the first practical gasoline car ever produced on this continent had made a trip about the city, with Henry Ford at the throttle. The purpose of the trip was to demonstrate to the public, through a reporter who had been invited along, that the car existed and was a success.

The newspaper account of the affair now seems very droll, because of the impressions created upon the mind of the reporter both by the car and the journey. The impressions were substantially the same as would have been created upon the mind of anybody who might have taken his place, which is what makes the narrative interesting. It is difficult to realize that the automobile was so recently a novelty.

The first thing that staggered the reporter, upon getting aboard was to discover that there appeared to be no machinery on deck, "it being placed practically under the floor."

That was surely marvelous enough in itself, but there was more to follow.

"There was really little or nothing," the writer added, "to show that there was an engine aboard at all."

Just as they were ready to start, "Mr. Ford, mounting the seat, inspected the tank and found that there was no gasoline on hand."

While Ford was finding gas with which to fill the three-gallon tank, the secretary of the company, who was also along, regaled the reporter with a tale about the difficulties connected with the making of an automobile, citing an instance when a week was consumed "at a cost of almost

$50 to discover that a screw a sixteenth of an inch too long, was what prevented the steering gear from working properly."

We learn from the article that the one who runs an automobile is an "automobileer" and that "beyond all doubt, he will be the most important manager this coming century."

The three-gallon gasoline tank having been filled, the story goes on:

> Mr. Ford, the automobileer, began by giving his steed three or four sharp jerks with a lever at the right hand side of the seat; that is, he pulled the lever up and down sharply in order, as he said, "to mix air with gasoline and drive the charge into the exploding cylinder." After he had compressed a few of these invisible cartridges back somewhere in the internal affairs of the engine under the floor,

Mr. Ford slipped a small electric switch handle and there followed a puff, puff!

"She's ready," said Ford.

"But you didn't touch a match to something or other."

Ford smiles.

"No necessity. The ignition is by electricity. Didn't you see me touch the switch up there? That fires the gas and the puff that you heard was the explosion."

By and by a man opened the factory door and with incomparable swiftness the machine picked up its speed and glided into the snowy, wind-blown street.

"First we'll try her on the rough country road," said Ford, as he veered around an unexpected corner.

The puffing of the machine assumed a higher key. She was flying along about eight miles an hour. The ruts in the road were deep, but

the machine certainly went with dream-like smoothness. There was none of the bumping common even to a street car.

"Hold on tight," said Ford. "When we strike the asphalt we will have a run."

"How fast?"

"Twenty-five miles an hour."

"Hold on! I get out."

Bang, bang, went the warning bell underneath the seat. A milk wagon was coming ahead. The horse pricked up his ears, his eyes gleamed ominously; he shivered as tho about to run away.

"Ever frighten horses?" I asked Ford.

"Depends on the horse," he replied. "A low-bred, ignorant horse, yes; a high-born fellow, no. There is as much difference between horses as between dogs. Some are wise, some otherwise. The other day I was passing down in front of the

Majestic Building in that big crush. Along came a man with a speeding cart and racer. The man who was with me told me to slack down, as there would surely be trouble. The racer came flying right by us and merely gave us a glance. He was too wise to show any emotion. Hello! What's this?"

By this time the boulevard had been reached, and the automobileer, letting a lever fall a trifle, let her out.

Whiz! She picked up speed with infinite rapidity. As she ran on, there was a clattering behind—the new noise of the automobile.

There has always been, at each decisive period of the world's history, some voice, some note, that represented for the time being the prevailing power.

There was a time when the supreme cry of authority was the lion's roar.

After that it was the crackle of fire.

By and by it was the hammering of the stone-ax.

Then it was the slapping of the oars in the Roman galleys.

Next it was the voice of the wind against sails.

It came at last to speak with a loud report, such as announced the reign of gunpowder.

The roar of dynamite was a long time later.

The shriek of the steam whistle for several generations has been the compelling power of civilization.

And now, finally, there was heard in the streets of Detroit the murmur of this newest and most perfect of forces, the automobile, rushing along at the rate of 25 miles an hour.

What kind of a noise is it?

That is difficult to set down on paper. It was not like any other

sound ever heard in this world. It is not like the puff, puff of the exhaust of gasoline in a river launch; neither is it like the cry, cry of a working steam engine; but a long, quick, mellow, gurgling sound, not harsh, not unmusical, not distressing; a note that falls with pleasure on the ear. It must be heard to be appreciated. And the sooner you hear its newest chuck, chuck, the sooner will you be in touch with civilization's newest lisp, its newest voice.

Down an asphalted street, Ford rushed her. People came to the windows and looked out with apparent curiosity. Pedestrians stopped to see her pass. She picked up speed as she traveled; and excepting that new noise, the run was smooth as it might have been in a dream.

"Look out," cried Ford.

Before an answer could be given, the danger was past. With a simple

twist of the wrist, the big machine turned gracefully to the right just sufficiently to allow a loaded brewery wagon to lumber on its way.

I began to have a creepy feeling and told Ford I wanted to get out.

"Nonsense," he replied. "No danger. All you have to do is to keep a sharp look-out ahead. It's like a bicycle, you see——"

"But that man at the crossing, right ahead."

"Gone," came the broken answer as another block of houses vanished in thin air as the automobile's speed developed. Block after block.

"Now you see how quick we stop her," said Ford. "I'll wager that a race horse going a mile in 1:40 can not be hauled up in less than one-sixteenth of a mile; we'll do it in six feet."

With that, the automobileer pushed something, and with the suddenness of a complete collapse, the

auto's speed died instantly away, and the big machine came almost to an immediate standstill.

"Whew" was all I could say.

Slowly Ford reapplied the power and the big machine picked up speed and flew again up the street, like some frightened ghost.

"How long would it take to learn to run her?" I asked.

"Oh, that depends," replied Ford. "Have you any sense about machinery?"

"Little."

"Well, in a few days, maybe a few hours—there's little to learn. Ride a bicycle? It's the same thing. If you don't look out ahead you may get into trouble. That is the secret of it. When you are running fast, you must keep your eyes open. Then you are perfectly safe. I have a speed-regulator under my foot. If I lift my foot, it stops her instantly. What more could you ask?

She simply can not run away."

"But that puffing. Isn't she liable to blow up?"

"Nothing to blow up."

"But we are sitting on three gallons of gasoline."

"That's nothing," said Ford. "It's perfectly safe. There is no fire around here and then, we are in the open air."

Ford pointed to one side of the street and said: "See that harness-maker's shop? His trade is doomed."

By this time, the automobileer had turned into the thick of Woodward Avenue, as far south as Montcalm Street, and was whizzing along through the crowd of vehicles. The speed was about eight miles an hour, but there was not the slightest danger.

"Yes, the old harness-maker," continued Ford. "I was in his shop ordering a lap robe. I heard him saying to a chum of his: 'That thing

will ruin us. They have to turn a crank to start her. She beats the devil.' "

"Then there is prejudice against the automobile?" I asked.

"Oh, not much," Ford replied. "A number of truckmen have been to see me to have motors attached to their trucks, thinking that it would cheapen their work. But you can't attach the motor to an ordinary wagon. You need special construction."

A loaded truck lumbered slowly into sight. As the auto approached, the irate truckman glared fiercely and then shook his fist. The passengers on the auto saw his lips move, as if he were framing a curse, but not a sound came, for whiz, the auto flew past like a flash of light.

The clanging of street car gongs mingled with the sound of the auto bell, adding a new noise to the

alarms of daily life. But she slid over the earth with infinite ease, and careened in and out among trucks, delivery wagons, carriages and bicycles; and everywhere, people had a welcoming smile and an expression, of delight. The new chuck, chuck, the newest voice of civilization, sounded like rare music in their ears—a music as yet involved with the delight of absolute novelty.

"The horse is doomed," I said to Ford.

At that moment, the auto whizzed past a poor team attached to a big truck.

"That's the kind," said Ford. "Those horses will be driven from the land. Their troubles soon will be over."

And the chuck, chuck of the new voice sounded for the first time in the strange horses' ears.

Meantime, the auto had slipped like a sunbeam around the corner.

"A BAD BEGINNING"

> Manager Ford is an expert in cutting circles and other fancy figures with an automobile. He turns sharp curves with the grace and ease of a wild bird, under full sail, and if at times he grazes the curbstones, so that the newcomer on the automobile seat hangs on for life, Mr. Ford only smiles. There is not the least danger. Besides, the spice of possible peril adds zest to the ride.

This article, which is here rescued from oblivion, is of historic interest for two reasons. It has to do with an important period in the life of the world's richest man, and it tells of the impressions created when the automobile came into the world. The article was illustrated with a pen-and-ink drawing showing a gasoline delivery wagon making a sharp turn in front of a team of frightened horses, and under the cut was the caption: "Showing How

Easily An Automobile May Be Steered Out of Danger." The following headlines were over the article itself: "Swifter Than a Racehorse, It Flew Over the Icy Streets; Thrilling Trip on the First Detroit-Made Automobile, When Mercury Hovered About Zero."

The automobile may and probably will stay on earth a long time, but in a little while there will be nobody on earth who saw the automobile come. Already there is a new generation, old enough to vote, who can not recall a time when there were no motor cars.

VIII

The Ford Motor Company Founded

HENRY FORD left the Detroit Automobile Company in 1901, bought a workshop at 81 Park Place, Detroit, with his own hands built a bigger and better automobile than he had ever built before and then set about to organize the Ford Motor Company.

The Ford Motor Company! How that name has reverberated around the world! John D. Rockefeller has characterized it as the "industrial marvel of the age." No gold mine ever gave up such treasure. The Kimberley diamond mines carried to the ends of the earth the name of Cecil Rhodes, but it carried it to no place where

the name of Henry Ford does not sound more loudly and more clearly. Yet, in the spring of 1903, the Ford Motor Company was but a dream—"the dream of a mad inventor."

So people said. This one and that one were urged to buy stock in the company. This one and that one declined. *Buy stock in the Ford Motor Company?* The idea was ridiculous. Where was the company and what were its assets and prospects?

There was no answer to these questions except that the company did not exist. What did exist was an inventor's rainbow, at one end of which was an idea and at the other end a basket of hopes.

Yet such is the quality of the human mind that here and there can be found those who will take a chance on almost anything. Henry Ford and his friends, by hard work and much talking, found a few

of this kind. They might double their money. They might lose it all. Let the gods decide. Having yielded in a weak moment, to his importunities, they washed their hands of the affair and, sitting back, left it to Ford to produce what results he could.

Some of the most astounding of the results may best be stated quickly and in paragraphs. The figures are all from the Ford Motor Company's books.

Miss R. V. Couzens, school teacher, sister of James Couzens, put in $100 and drew out $355,000. She would have put in $200 except for the fact that her father cautioned her not to risk more than half of her savings.

James Couzens put in $900 of actual cash and $1,500 in notes and drew out $39,500,000.

Henry Ford put in himself and his

car and is now the sole owner of industries that he told me he could capitalize and sell for a billion dollars.

These are the "high spots" of the Ford Motor Company's story. What happened, in more detail, was this:

Henry Ford, while employed by the Edison Company as chief engineer, frequently had occasion to go to the office of Alex Y. Malcomson who furnished coal for the plant. In this way, he became acquainted with Mr. Malcomson. When the time came to organize the Ford Motor Company, Malcomson was in a frame of mind to consider it. He had heard Ford talk so much about his car that he believed there might be something in it.

The arrangement that was finally made between the two was this: Ford and Malcomson were to be equal owners of 51 per cent. of the stock in a $100,000 company.

For Malcomson's 25½ per cent. of the stock, he was to guarantee the company's bills up to $3,000.

"I was Malcomson's bookkeeper and manager when he went in with Ford," said James Couzens to me, "though as soon as the Ford Motor Company was organized, I became a stockholder and secretary and treasurer of the company. As Ford's bills began to pile up and finally went over the $3,000 limit I warned Malcomson many a time. Malcomson was committed for $7,000 before the company got on its feet. Malcomson was afraid that his credit with the banks would be injured if it were publicly known that he was backing anything so risky as an automobile venture, so he gave me funds to deposit in my name with which to pay Ford's bills. Nobody knew me then and it was safe to have my name on checks."

There is no stranger story in fiction than the story of Alex Y. Malcomson. All his life he had been a money-seeker in the sense that all business men are. As a money-seeker, he had been fairly successful. His coal business had prospered. But in all his ventures, he had never hit the trail of "big money." He had prospered only in the ordinary, business way.

But here, in the spring of 1903, Fate had flung him into what was destined quickly to become the greatest money-making house in all history. Nor did he come in as a small player at the gold game. He sat at the big table, beside the big man—an equal owner with the big man.

Fate spun the wheel of Opportunity and set the little ivory ball of Judgment going. Ford and Malcomson were both down on the lucky number. The ball, af-

ter whirling around a number of times, was about to drop. Ford sat tight.

Malcomson grabbed his money and jumped out of the window!

This in a figurative sense, of course.

What actually happened was this: Ford and Malcomson did not get along very well. Though the company was making money, Malcomson lost interest and wanted to sell out. He had invested, in actual cash, $7,000. For his stock, he demanded what was at that time regarded as a big price—$175,000. Ford bought the stock at this price, tho he had to borrow money and give notes to do it. Thus he became owner of 51 per cent. of the company's stock, and therefore controlled the company.

Nothing in Ford's career is more remarkable than the manner in which he contrived to market an idea and at the

same time keep control of it. The sad tale of the inventor is but too well known. For all practical purposes, Ford was as poor as any of them. He had a little money, but not enough to get into the manufacturing business, even in a small way. He was forced to take all the partners he could get and, himself, to become a minority stockholder. When Malcomson sold and Ford bought him out, Malcomson was supposed to be the better business man. Malcomson was known to Detroit as one of its solid merchants. Ford was not known to Detroit at all. The few who did know him, knew him as an engineer who some said had gone mad over a "horseless carriage." Yet when the crucial moment came, Malcomson was the one that jumped out of the window! The "business man" of the two threw away a fortune of $250,000,000 to get $175,000.

Two hundred and fifty millions is what Malcomson would have to-day if he were the owner of a fourth interest in the Ford properties. Yet in selling for $175,000 what had cost him but $7,000, Malcomson undoubtedly did only what 999 good business men out of 1,000 would have done.

It is easy enough to say that in mortgaging himself to the limit to buy out Malcomson, Ford was still but the "mad inventor," obsessed with the worth and prospects of his own idea. But the truth is that Ford was about as good a business man then as he is now; and Edison said to me: "Among American business men, I rank Ford at 100 per cent." Ford is not now a business man so much because he knows the rules of the game as he is because he has an uncanny instinct for seeing his way along an intricate path. He has said to me many times: "I am not a

financier." Edison said to me: "Ford is a 'natural business man,' just as he is a 'natural mechanic,' and he is the rarest of all types, in that he is a combination of these two."

By "natural business man" and "natural mechanic," Edison means one who, without having studied business or mechanics, reaches correct conclusions in both fields by instinct.

I once said to Ford, after he had told me how easily everything mechanical had come to him when he was a boy working in Detroit machine shops: "Did you ever try to do a thing with machinery for the first time and feel that the process of doing it was nevertheless familiar to you?"

A little smile quickly over-ran his face.

"Oh, you mean reincarnation," he said. "You believe in that. I do, too."

Ford's statement as to what I believed

was a shot in the dark so far as he was concerned, inasmuch as I had never discussed the matter with him. I tried him with a mild reference to reincarnation in the belief that he knew nothing about it. Those who regard Ford as an ignorant man do not know him. He has not read everything, but he has sensed a very great deal.

Ford is a good deal of a mystic. He has a profound faith in "things unseen"—a faith that enables him to envision a universe governed by Law in which are human beings in each of whom is something that can not die.

"I do not agree with Edison about this," he said to me one day when we were discussing the question of eternal life. "Edison is not convinced that there is any other life after this. He thinks life is all a matter of cells and that when our cells break up, we die, tho our cells, which he

believes are intelligent, may re-assemble somewhere else and live again. I agree with Edison that some of the cells of which we are composed are intelligent. But I agree with him in something else, too. I agree with him that nothing can be destroyed. Now, among cells as among bees, there must be a queen—a queen-cell, in this case; or, at any rate, I believe there is. I believe this queen-cell is the character, the personality, what some would call the soul—the organizer of the organism. Each of us has a character of his own. I believe that character, once having been created, is never destroyed."

Ford talks much about faith—how little faith we have, how much we should have and what an awful thing is fear. He stresses these beliefs so much that I once told him that he talked like a Christian Scientist.

"I have been told so before," he replied,

"but I don't know much about Christian Science."

Ford is a mystic, with his head oftentimes among the stars, but his feet are always on the ground. Yet his feet are not more firmly on the ground than were those of Abraham Lincoln, and before each great event of his later life Lincoln had a certain dream—always the same one—that caused him to know when a critical event was impending, a dream of a ship at sea.

Apparently without intending to do so, Ford once told me that a certain dream always came to him before each great business adventure. I quickly asked him what it was, but he would not tell me.

Lincoln let the world know about his dream and the world understood him. There are dreams and dreamers, and Ford, no more than Lincoln, is the kind to let his dreams make a fool of him. But as studies

in psychology, such dreams are of profound interest and no one knows to what fields of undiscovered knowledge the study of such dreams may lead us.

This chapter began with the first steps in the organization of the Ford Motor Company, rapidly moved on to religion and other things and winds up with psychology.

It is written just as it is to enable the reader to understand just what my conversations with Mr. Ford were like. Each differed from the others except for the fact that each was interesting. Mr. Ford does not like to talk about what he has done, and when pressed to do so, his mind slips off the topic and skips from subject to subject like a bee among flowers.

IX

The Great Game of Fortune

GREAT with fate were those early days when the Ford Motor Company was forming and getting under way. In those days destinies were decided. A single misstep would have wrecked Ford. Henry Ford's fate was measurably fixed the day he decided to buy out Malcomson and gain control of the company. All that has since happened to Ford in the way of money is the logical result of that act. If instead of buying out the heaviest stockholder except himself Ford had sold out, the name of Ford probably would have gone down with that long list of names of men who knew how to invent but did not

know how to profit from their own inventions.

But those days of destiny were not alone for Ford. Albert Strelow of Detroit put $5,000 into the Ford Motor Company. Then he went to British Columbia. In a year or so he had found what he believed was a great gold mine. All that was necessary was money with which to develop it. He thought of his stock in the Ford Motor Company and returned to Detroit to see if he could raise any money on it.

Mr. Strelow found that the Ford Motor Company was doing very well indeed. Fate must have laughed at him from behind her fan while he listened. James Couzens offered to buy Strelow's stock for $25,000—five times what Strelow had paid for it. It seemed a big price, both to Strelow and to Couzens—but Couzens had faith and Strelow thought only of his gold

mine in far-away British Columbia. Strelow took the $25,000 and went back to his mine.

Mr. Strelow returned to Detroit in 1914. The newspapers were full of news and comment about the Ford Motor Company's profit-sharing plan and its gift of $10,000,000 to its employees. Strelow went out to the great Highland Park Works of the company of which he had once owned one-fifth of the stock. But he went to get a job. In his British Columbia gold mine he had lost every dollar of his money and also his chance of becoming a multi-millionaire. The stock that Strelow once owned would be bringing him in to-day, if he still owned it, $4,000,000 a year, and the stock itself could be sold for $50,000,000.

James Couzens made more money out of the Ford Motor Company than any

other man except Henry Ford. Couzens, at the time the company was formed, was 31 years of age, and clerk, bookkeeper and manager in Alex Y. Malcomson's coal office at $1,800 a year.

"The first time I ever saw Henry Ford," said Mr. Couzens, "was when I asked Malcomson who was that man with the big mustache, who was looking at some coal in our office. Malcomson said it was Henry Ford, the Edison Company's engineer. We supplied the Edison Company with coal, and Ford used to come over, every little while, to see that he got the kind of coal he wanted."

Mr. Couzens became interested in the Ford Motor Company, when Ford was trying to float it, only because Malcomson was interested.

"I claim no credit," said Mr. Couzens to me, "for the money I made out of the

Ford Motor Company. It was not due to any foresight of mine. It was due to blind luck. I went into the company only because Malcomson did, and, in the beginning, would have been satisfied with a very moderate return upon my investment. I made money only because I had the luck to go in with a genius. I did not know a thing about automobiles. Malcomson used to take me out in his car sometimes, and frequently turned something on the dashboard, explaining to me that he was 'changing the mixture.' I thought he meant that he was mixing water with the gasoline, and continued to think so for a long while. That's how much I knew about automobiles. And I don't know anything about manufacturing to this day. Since I left the Ford Company I have had several opportunities to return to the manufacturing business and I have always

told those who invited me that I knew nothing whatever about manufacturing."

Mr. Couzens had saved $400. He tried to borrow $200 from his sister, but owing to their father's caution, she lent him but $100. Malcomson had promised Couzens a bonus of $1,000 if he would bring the year's profits in the coal business to $100,000, but the profits fell short less than $10,000 and Malcomson gave Couzens $500. Mr. Couzens therefore had in cash an even $1,000. To this he added a note for $1,500 and bought $2,500 worth of the Ford Motor Company's stock. When the company made good Mr. Couzens, instead of paying his sister the $100 that he had borrowed from her, gave her one share of the company's stock. It was this share of stock from which she drew, in dividends $95,000, and from its sale $260,000, a total of $355,000. Couzen's actual

cash investment in the company from which he drew $39,500,000 was therefore $900.

Mr. Couzens, when he became interested in automobiles, gave up his place in the coal office and went with the Ford Company as secretary and treasurer. He was the Ford Company's first employee. In a little while Couzens hired a one-armed bookkeeper named Talmadge to help him.

"The Ford Company," said Mr. Couzens, "first had one man, then a man and a half. We had to let Talmadge go after a little because, tho he had but one arm, he insisted upon driving a car, and we were afraid he would hurt somebody."

Mr. Couzens had his day of fate, too. After he had been in the Ford office a while, Malcomson wanted him to quit and go back to the coal office, while he, Mal-

comson, took his place with the Ford Company.

"I did not want to change," said Mr. Couzens, "and H. F. and the Dodge Brothers stood by me. So I stayed."

Dodge Brothers had a little machine shop and a small working capital. Ford needed somebody to make his engines. He made arrangements with the Dodges to take $10,000 worth of stock and pay for it in work. Tho the Dodge Brothers did not then know it, the making of this arrangement settled certain things for the Dodge families for a long time to come. They were no longer to be poor mechanics. They were to be multi-millionaires. They were ultimately to found a great industry to manufacture a car of their own. The Dodge Brothers drew from the Ford Motor Company in dividends $9,-

871,500, and from the sale of stock $25,000,000, a total of $34,871,500. This was the prize that Fate threw these poor mechanics because, one day in June, 1903, they consented to make engines for Ford and take stock in his company for their work and materials. But for only a few years did the Dodges enjoy their prosperity. They both died in middle age.

John S. Gray, president of the German-American Savings Bank of Detroit, was Malcomson's banker, a warm friend of Malcomson, and a good business man. Being both a banker and a good business man, he was cold to Malcomson's urging to invest in the stock of the Ford Motor Company. Paint the picture of riches as Malcomson would, Gray could not see it. Malcomson finally guaranteed Gray against loss if he would invest $10,500 with Ford. Upon these terms Gray made the invest-

ment and became the first president of the Ford Motor Company.

Mr. Gray was old when he made the investment. He lived to realize that he had been coaxed into a gold mine, but died without knowing the actual richness of the mine. His estate afterward sold his stock to Henry Ford for $26,250,000, after having drawn dividends of $10,355,075, a total of $36,605,075.

Horace Rackham and John Anderson were Malcomson's lawyers, and when the articles of incorporation of the Ford Motor Company were to be drawn up, Malcomson shunted the business to them, with the suggestion that they "get in" on this good thing. The story is often told that Rackham and Anderson received stock in return for drawing up the incorporation papers, an added embellishment being that Ford was too poor to pay cash. This is

not true. Each of them decided to take $2,500 in stock. After listening to Malcomson some more, each of them decided to double this amount. Rackham lived two doors from Ford on Bagley Avenue and had heard the Ford engine sputtering at all hours of the night. He did not, however know Ford, tho he lived so near to him. Rackham was a lawyer. Ford was an engineer. Lawyers and engineers seldom meet except in the court room, and Ford, at that time, had never been in court.

Mr. Rackham had a little real estate in the outskirts of the city. When he determined to put $5,000 instead of $2,500 into the Ford Motor Company, Mr. Rackham talked over with a number of bankers the matter of a loan on the real estate. The bankers warned him of the perils attendant upon the course he was contemplating. The automobile business was ex-

tra hazardous. New companies were springing up in Detroit over night.

This all seems very grotesque now, but it was not grotesque then. It was sound sense. Only the Almighty then knew what Henry Ford was capable of doing. Nobody else had any reason to single out Ford, from the many who were tinkering with automobiles, as a budding mechanical and industrial genius.

Yet Rackham and Anderson, against the advice of their friends, obeyed some sort of an inward "hunch" and went in with Ford to the extent of $5,000 worth of stock each. Their investment ultimately yielded each of them $17,435,750, of which $4,935,750 was received in dividends and $12,500,000 from the sale of the stock of each to Henry Ford. What happens in the law business no longer interests them.

This completes the list of the organizers

of the Ford Motor Company who made the "big money" out of it—first Ford, then Couzens, the Gray estate, Dodge Brothers, Rackham and Anderson, altho Miss Couzens, from her investment of $100, made as much in proportion as any of them. But there are three others of the original stockholders whose names must be placed in the list of those who, having but to sit still to become multi-millionaires, nevertheless, got out. Malcomson heads this list, and, as we have seen, the name of Albert Strelow is also on it. The other three who missed fortune by an eyelash—who would have been multi-millionaires if paralysis, the sleeping sickness or something else had incapacitated them from moving from the lucky spots they occupied—were C. H. Bennett, at that time with the Daisy Air Rifle Company, of Plymouth, Mich.; C. J. Woodhall, of Detroit, and

V. C. Frey, of Detroit. Bennett subscribed for $5,000 worth of stock, Woodhall, who was Malcomson's bookkeeper, subscribed for $1,000 worth, and Frey subscribed for $5,000.

Soon after Malcomson sold his stock to Ford, Bennett, Woodhall and Frey wanted to sell. Ford and Couzens bought the $10,000 worth of stock held by Bennett and Frey for $50,000, Ford taking 6,500 of the stock and Couzens $3,500. In other words, Bennett and Frey received $25,000 each. Ford bought Woodhall's stock for $5,000.

This completes the list of original Ford stockholders which, with the amount of stock subscribed for by each was as follows:

Henry Ford	$25,500
Alex Y. Malcomson	25,500
John S. Gray	10,500
John F. Dodge	5,000

Horace E. Dodge	5,000
Horace H. Rackham	5,000
Albert Strelow	5,000
John W. Anderson	5,000
C. H. Bennett	5,000
V. C. Frey	5,000
James Couzens	2,400
C. J. Woodhall	1,000
Miss R. V. Couzens	100
Total	$100,000

Of this sum only $28,000 was paid in in cash. Ford put in his car for his stock and let Malcomson have $25,500 worth of stock for guaranteeing $7,000 worth of bills. The Dodges paid no cash. Most of the others put up notes, in whole or in part. All the figures in this chapter were taken from the Ford Motor Company's books.

The company was incorporated on June 16, 1903, with 13 stockholders.

X

Getting Under Way

THE Ford Motor Company, at last started on its wonderful way, a small manufacturing place was established at Mack Avenue and Bellevue Street, Detroit. As the engines, chassis and bodies were to be made outside, it was necessary to employ only a few men whose work was to assemble the parts. Ford, as vice-president of the company and factory manager, wore a cap, worked with the men and finished no day until far into the night. All the men worked overtime. There were not only cars to make, but no car was ever good enough to suit Ford. There was always something about it that he believed

he could improve. That was why there was so much night work. But the men were as eager to do their best as Ford was that their best be done. Like Ford, they worked to the limit of their endurance.

"One night I saw H. F. coming over from a saloon," said Mr. Couzens, "carrying a glass of whisky. As I knew he did not drink, I asked him what it was for. He said one of the men was sick. I asked Ford if he remembered the incident. He replied that he did and said that one of the men had a stomach ache."

By the middle of August, eight or ten cars had been assembled, but none had been shipped because Ford felt that they were not yet as good as he could make them.

"I urged H. F.," said Mr. Couzens, "to get the cars out and get the money

for them, regardless of whether he could improve them. We had but a small working capital and it was getting low. I remember that Ford, C. H. Wills and I took the cars to the railway station, crated them and nailed the doors of the cars. The first cars we ever shipped were sent to Indianapolis, Minneapolis and St. Paul."

On October 1, 1903, the Ford Motor Company paid a dividend of 2 per cent.

"At that time," said Mr. Couzens, "I made the company's first trial balance, using an indelible pencil and a single sheet of paper."

Ford's salary at that time was $300 a month and Couzens' $200 a month. "We were out riding one time," said Couzens, "and settled upon these sums."

The coming of fall unmistakably showed that the company was really under way. Sales for the three-and-a-half month pe-

riod, from July 16 to September 30, 1903, amounted to $132,481.72, on which the net profit was $36,957.64. The Ford car was catching on. Orders were coming in.

Then came those great days of racing which were to send the name of the Ford car around the world. Ford built a powerful racer and to the astonishment of the country beat Alexander Winton, each owner driving his own car. It is interesting to recall now that a Detroit paper, in referring to the forthcoming race, which was to be held at Grosse Pointe, printed the following paragraph:

"One of the most promising contestors for this event is the Detroit chauffeur, Henry Ford. His machine was tried out on the boulevard recently and without great effort covered a half-mile in 38 seconds. This record compares favorably with the work done by Winton, Murray and Hamil-

ton, although his car is of much less horsepower than theirs."

In 1922, one can not ride five minutes in the club car of any train within 100 miles of Detroit without hearing somebody speak of Henry Ford, nor can any one sit five minutes in a Detroit hotel lobby without hearing Ford's name spoken. Yet in the fall of 1903, even the Detroit newspaper men did not know Ford. Tho he had begun manufacturing cars in the city of Detroit, the Detroit newspaper men did not know it and therefore did not refer to him as the "vice-president and factory manager of the Ford Motor Company." Instead, he was a "promising Detroit chauffeur."

One has to rub his eyes all the time when he is in Detroit with Ford. In mentioning this fact to him one time, I told him that when I was the editor of a De-

troit newspaper 20 years ago, my salary was greater than his and that I had never heard of him. He heard the announcement while maintaining the face of a sphinx—without a sparkle in his eye or the sign of a smile. I never saw Ford betray the slightest indication of elation or pride in connection with the magnitude of what he has done. He would idly tap his teeth with a finger-nail, perhaps, and look out the window, as if nothing were in his mind —but never a word.

After beating Winton, Ford went out on the ice on Baltimore Bay, Lake St. Clair, and did a mile at the rate of 92 miles an hour. That made the whole country talk, both of the Ford car and of Ford. The car in which he made this great burst of speed—the old "999"—was taken, a week later, to the 1904 automobile show in Madison Square Garden, New York,

where it was the great attraction of the show.

Ford was too busy developing and manufacturing his car, however, to devote himself to racing. Barney Oldfield was therefore employed to do this. Everybody knows that Oldfield did his job well.

"Those were the great days," said Ford to Oldfield a few years ago, "when I was making you and you were making me."

Oldfield looked at him a second out of the corner of his eye and replied: "Yes, they were the great days. But don't you think I did my job of making you a little better than you did your job of making me?"

I had heard this story somewhere and asked Ford if it were true. He laughed and replied that it was.

Ford and Oldfield are still warm friends. Oldfield came out to the Dear-

born plant one day in the winter of 1921-22. Ford and I happened to be walking along a hall when he espied Oldfield approaching, fifty feet away.

"Hello, Barney," shouted Ford, swinging an arm and quickening his pace.

"Hello, Henry," replied Oldfield, beaming, with the inevitable cigar clenched between his teeth.

The Ford Motor Company, during the first 15½ months of its existence, paid dividends equal to the entire capital stock of the company. It was plain that the venture was to be a success. The stockholders, with the exception of Henry Ford, faced the future with composure. They had received all of their money back and were, as the saying is, "on velvet." Perhaps Ford, too, for another reason, was as happy as any of them. Things were not going right, and it is when there are

problems to solve and obstacles to remove that Ford is most himself and at his best. Smooth sailing always bores him. When things are too quiet, he always looks for something to do.

It was because he "wanted something to do" that, against the wishes of Mrs. Ford, who thought he already had too much to do, he granted the request of the United States in 1921 that he make a bid for the great water power at Muscle Shoals.

At any rate, Ford had plenty of problems and enough to do in the years immediately following the founding of the Ford Motor Company. To all outward appearances, the company was proceeding as harmoniously as it was profitably. Its business was growing and time after time the plant was moved to larger quarters.

But all this time a battle was going on inside the company. One of the large

stockholders differed radically from Ford as to the kind of a car the company should make and the kind of trade it should seek. Ford apparently felt it advisable to yield to a certain extent, even against his will, to the other man's judgment. But there was battle all the while—battle that never ended until Ford gained control of the company and sharply turned its course to the direction in which he believed it should go.

And not until Ford gained control was it apparent that the Ford Motor Company was to be, not merely a business success, but what Rockefeller later declared it to be—"the industrial marvel of the age."

XI

"Inside" Ford Facts

TO get a clear understanding of what happened in the Ford Motor Company during the first three and one-half years of its existence one must know the price at which the car was sold, the number that were sold, what they brought in cash and what were the net profits.

In presenting these facts in this place, it seems advisable to go ahead of the story and print these facts for the company's entire history. I am able to do this because Mr. Ford gave me the figures. When I told him what I wanted, he took me into the office of his secretary, Mr. Liebold, and directed that the data I desired be

compiled and given to me. In a few days the information came back from the Highland Park office, where it was collected, and was handed to me.

That is the Ford way. He either gives a man all his friendship or none. I had asked for figures that went to the very "insides" of his company—figures that had never before been printed either about the Ford Motor Company or any other within gunshot of its size—and he ordered them turned over to me with no more question than if I had asked him to tell me the time of day.

Yet the reason for this was more than mere friendship. I am no particular friend of Mr. Ford's I have known him for a number of years, spent most of the winter of 1921-22 in his offices at Dearborn. But Ford is friendly to everybody who really gets to know him at all. It was not merely

friendship that caused him to supply me with the astounding "inside" figures that are in this book. I believe it was due more to Ford's deep-down belief that everything in the world should be done in the open.

"The day will come when there will be no secrets in business," said he to me one day when we were discussing the possibility of the indefinite extension of wireless telephony, with all of one's competitors listening, perhaps.

There are secrets in the Ford organization, plenty of them, but they are maintained because, in existing business circumstances, they have to be.

I will first present the number of Ford cars sold each year from the organization of the company to the close of business on December 31, 1921:

1903-4.....	1,708	15½ months
1904-5.....	1,695	
1905-6.....	1,599	
1906-7.....	8,423	
1907-8.....	6,398	
1908-9.....	10,607	
1909-10.....	18,664	
1910-11.....	34,528	
1911-12.....	78,440	
1912-13.....	168,304	
1913-14.....	248,307	
1914-15.....	221,805	10 months
1915-16.....	472,350	
1916-17.....	730,041	
1917-18.....	656,165	
1918-19.....	487,802	
1919-20.....	635,226	Aug., 1919, to
1919-20.....	690,755	April, 1920
-		May, 1920, to
-		Dec. 31, 1920
1920-21.....	933,720	Calendar year
Total.....	5,406,537	

That is the total number of Ford cars sold to the beginning of 1922. The number of tractors sold up to January 1, 1922, was 199,447.

Next comes the cash receipts from the foregoing sales, which was as follows for the fiscal periods ending on the dates named.

Sept. 30, 1903.....	$132,481.72
Sept. 30, 1904.....	1,204,317.83
Sept. 30, 1905.....	1,914,902.82
Sept. 30, 1906.....	1,491,626.16
Sept. 30, 1907.....	5,773,851.38
Sept. 30, 1908.....	4,701,298.42
Sept. 30, 1909.....	9,041,290.55
Sept. 30, 1910.....	16,711,299.45
Sept. 30, 1911.....	24,656,767.75
Sept. 30, 1912.....	42,477,677.22
Sept. 30, 1913.....	89,108,884.56
Sept. 30, 1914.....	119,489,316.99
July 31, 1915 (10 mos.)..	121,200,871.00
July 31, 1916.....	206,867,327.46
July 31, 1917.....	274,575,051.53
July 31, 1918.....	308,719,033.60
July 31, 1919.....	305,637,115.28
April 30, 1920 (9 mos.)...	429,866,662.65
Dec. 31, 1920 (8 mos.)...	483,896,482.65
Dec. 31, 1921.....	546,049,449.96
Total.	$2,993,515,708.98

Almost three billions! That is what the

Ford Motor Company had received in cash from the date of its incorporation to January 1, 1922. This total includes receipts from the sale of tractors as well as from the sale of automobiles and trucks.

Now we come to the net income—the profits—of the Ford Motor Company and of Henry Ford & Son, Inc. The latter corporation was formed to manufacture the Fordson tractor, but was discontinued at the close of 1918, when the tractor business was taken over by the Ford Motor Company. Here are the Ford profits:

Ford Motor Company:

June 16, 1903-Sept. 30, 1903	$36,957.64
Oct. 1, 1903-Sept. 30, 1904	246,079.67
Oct. 1, 1904-Sept. 30, 1905	290,194.02
Oct. 1, 1905-Sept. 30, 1906	102,397.93
Oct. 1, 1906-Sept. 30, 1907	1,124,675.38
Oct. 1, 1907-Dec. 31, 1908	1,150,983.28
Calendar year 1909.....	3,125,875.58
Calendar year 1910.....	4,127,207.92
Calendar year 1911.....	7,288,303.48

Calendar year 1912.....	13,552,239.17
Calendar year 1913.....	27,001,202.95
Nine mos. to Sept. 30, 1914	24,923,448.91
Ten mos. to July 31, 1915	23,426,661.53
Fiscal year to July 31, 1916	57,056,428.85
Fiscal year to July 31, 1917	26,715,944.41
Fiscal year to July 31, 1918	30,341,057.38
Five mos. to Dec. 31, 1918	10,371,690.40
Calendar year 1919.....	69,924,410.52
Calendar year 1920.....	53,448,479.82
Calendar year 1921.....	75,890,836.44
Henry Ford & Son:	
Fiscal year to July 31, 1918	1,009,100.42
Five mos. to Dec. 31, 1918	1,289,713.67
Grand total.....	$432,443,888.47

That is what the Ford gold mine had produced in profits up to January 1, 1922. Salaries, wages and bonuses paid during the same period amounted to $621,747,-340.05.

A study of the foregoing tables reveals the precision with which Ford's theory with regard to the relationship between low prices, large output and big profits

works out in practise. The price of the first Ford car was $950. During the second year of the company's existence Ford, against his own judgment, yielded to the importunities of a partner to put out a six-cylinder car at $2,000 and it will be noted that, during the next year, tho profits increased, the production of cars fell off. During the third year, both production and profits declined, the latter shrinking to a third of what they were the year before. These years represent the period of internal warfare that took place within the company to determine what class of cars it should make, Ford standing out for a car for the common people and the opposition contending for a more expensive vehicle.

The calendar year 1909 found Ford firmly in the saddle and thereafter both production and profits rapidly increased.

The price of the car was again reduced to $950.

"I always fix my selling price below what appears to be the cost of production," said Mr. Ford to me when we were discussing the figures in this chapter. "The increased volume of business is sure to reduce the cost of production, thus giving a profit."

That is exactly what Ford did after the tremendously profitable year of 1921—cut prices below apparent cost. By dividing the profits for 1921 by the number of cars sold I found that this process gave $81 as the apparent profit on each car. I asked Mr. Ford if I might apply this process to all the years and print the results. He said I might, but added that it would be better to have the exact profits compiled in his office and the figures given to me. He gave orders that this be done,

but when the task was undertaken, it was found that it was impossible to get the exact profit upon each car for the early years of the company's existence because in keeping the books, profits on the sale of parts used in repairs had been included with the profits on cars. The Highland Park office, in forwarding the figures on profits per car, attached a note in which it was explained that the figures were not and could not be accurate, tho they were nearly so. I do not include these figures prepared by the Ford Motor Company, tho I may add that the profit per car for 1921, as thus given with reservations by the company, was $99, as against my figure of $81.

At any rate, the price of the Ford car was cut in 1922 to a point that is $92 less than the car brought during most of 1921. The price in 1921, for most of the output,

was $440. The price in 1922 was $348. In other words, if the volume of business in 1922 were to be the same as it was in 1921, and costs were to be the same, the Ford Motor Company, instead of having a profit of $75,890,836, would have a loss of $10,011,404.

"Ford always plays with blue chips," said Edison to me one day in speaking of the enormous sums with which his Detroit friend juggles. Blue chips indeed! It was with a chip worth almost $86,000,000 that he backed his judgment when in 1922 he so cut the price of his car that he apparently wiped out all of his profits and stood to take a $10,000,000 loss on the current year's operations. Most business men would probably call such a cut madness. Ford believes it is madness to curtail one's markets and keep his costs high by charging high prices.

XII

The "Bombshell" That Made Ford Famous

THE world discovered Henry Ford in January, 1914. For almost eleven years he had been building cars, moving from one factory to another to get more room and amassing a few modest millions for himself and his stockholders. Not until 1909 did the Ford Motor Company really get under way as a promising money-maker, doubling its profits of the year before and making more than $3,000,000. In 1910, the profits went to $4,000,000 in 1911 to $7,000,000, in 1912 to $13,000,000, in 1913 to $27,000,000.

And then the thing happened that transformed Ford from a citizen of Detroit to a citizen of the world.

The $5 a day minimum wage and $10,000,000 profit-sharing plan was announced!

Ford threw this bombshell into the world and a billion echoes came from the four corners of the earth. One of these echoes caught Ford a few days later when he was seated in a barber's chair at the Hotel Belmont barber shop in New York.

"I see by the newspapers," said the barber as he scraped Ford's face, "that Ford is going to give everybody at least $5 a day and distribute $10,000,000 this year in bonuses to his men. That sounds pretty fishy to me—doesn't it to you? I never noticed any millionaires handing out money like that. Still, you can't tell. I have a friend who works in the Ford factory and he says it is on the level."

"I work in the Ford factory," replied

Ford, "and know Ford well. He will do whatever he says he will do."

The world simply could not believe that even floor sweepers were to be paid $5 a day. A magazine sent me to Detroit to get the facts and warned me to let no wool be pulled over my eyes. I was taken out into the plant where men were being paid and shown their pay envelopes—shown even their money—and was one of hundreds of other writers who eventually convinced a skeptical public that Ford was doing precisely what he said he would do.

Nothing that ever happened in the industrial world produced so great a sensation. Every section of society was shaken. Detroit workingmen stormed the Ford factory to get jobs, the reduction of the work-day from nine to eight hours having created a need for more men. It was mid-winter, but crowds came until they

blocked the streets and jammed the gates so that employees could neither get in nor out. Police tried to keep order, but they might as well have issued orders to the falling snowflakes. Men, determined to get jobs, broke through the gates and entered the plant in the belief that, once inside, they would be employed. The police were eventually compelled to turn a fire hose on the crowd to disperse it. And while the crowd was dispersing, working men were buying tickets for Detroit at thousands of stations in the United States.

Employers of labor were shaken no less than workinmen—but for quite a different reason. What was to become of the labor market? Who would be satisfied to work for $2 or $3 a day if he knew Ford was paying $5 for the same labor? Bankers who had lent money to employers

thus troubled added their voices to the chorus of complaint. They severely frowned upon Ford for his foolish act. They said that it was "uneconomic," that it was "founded upon a fallacy" and that his plan would fail. Eight years afterward, I spent a number of hours reading scrap-books in Ford's office in which were thousands of such prophecies of disaster. The hatred of the banking interests for Ford began the day he reduced working hours, established a $5 a day minimum wage and announced a $10,000,000 profit-sharing plan. This hatred has been increased every time he has cut the price of his car.

Ford was as little moved by the torrent of praise that came to him as by the rivulet of criticism. Over and over again, he said that "he would rather make 15,000 families happy than to make 20 or 30 mil-

lionaires." The sour little minority that exists in every population refused to grant him the slightest measure of appreciation. According to such persons, Ford had acted only from shrewdly selfish motives. By increasing wages and shortening hours he would get the pick of the working class and also get their best efforts. There are still those who believe Ford had no generous motive in shortening work-days and increasing wages.

Ford would be the last one to claim that he was entitled to anybody's thanks for doing what he did. His view is that he could afford to do what he did and the men were entitled to all they received. From my knowledge of Ford and the facts I should say that the profit-sharing plan started from a generous impulse, with no thought of what effect it would have upon the productivity of the workers. Ford is

a great believer in the theory that the doing of good brings good to the doer, but he is not the kind of a man to do a good thing merely to get the reward.

In the wake of the newspaper and magazine writers came writers for engineering journals both in America and Europe. They wished to see and to describe for the benefit of other manufacturers the wonderful Highland Park plant in which Ford had brought standardized production to so high a degree of efficiency. The best technical writers in the world saw the plant and marveled. But eight years later, it does not appear that other manufacturers have learned much from Ford's object lesson.

The stream of visitors to the Highland Park plant that began in 1914 has never ceased. Almost every great engineer in the world has been there. Celebrities of

every kind, when they come to America, go to see Ford. Lord Northcliffe went to Dearborn and, with Ford, plowed with a tractor at least long enough to be photographed. Harry Lauder drops in whenever he comes that way. Great mandarins come from China. Ford has an autograph book in which are the names of some of those whom he invites to have luncheon with him at the Dearborn plant. It contains thousands of names.

Visitors were at first a problem at the Highland Park plant.

"The superintendent complained to me one day," said Ford, "that the visitors were a nuisance because they diverted the attention of the men. I fixed that, tho. We let so many go through after that, for a while, that they ceased to be a novelty. In a little while no workman would look at a visitor."

From the day that Ford introduced himself to the world with his big pay and profit-sharing plan, his fame has steadily grown. With the possible exception of Edison, Ford's name is probably known to more human beings the world over than that of any other American—possibly than that of any other man in the world. A few years ago, a man pasted Ford's picture on an envelope and, without any name or address, mailed it. The letter went straight to Detroit and to Ford.

Yet Ford is not well known in the streets of Detroit. This is because he usually whizzes through the streets in a car in passing from one to another of his plants, seldom stopping in town.

Ford, as we have seen, became world-famous in a day. But there would have been no great profits for him to divide if he had not won his long suit to establish

his right to make automobiles without the payment of tribute to the owners of the Selden patent .

"If we had not won that suit," said Ford, "there could never have been in this country such an automobile industry as exists."

George B. Selden, a New York lawyer, obtained a patent, many years ago, that it was later alleged covered all vehicles propelled by internal combustion engines. He never manufactured cars, but years later, when others did so, he accused them of infringing upon his rights and, to avoid litigation, all of them except Ford paid tribute to him in the form of license fees. Ford refused on the ground that his engine differed in principle from the engine protected by the Selden patent. The difference was one that only a mechanic could easily understand, but to Ford it was plain and he insisted that the difference existed.

Ford led the fight in the courts against the Selden patent and a few others joined him. But with the first adverse decision, the others gave up the case and left Ford to fight alone. The Selden interests, encouraged by their first court victory, began a nation-wide advertising campaign to frighten possible buyers of Ford cars by threatening them with damage suits for infringement of patent rights. Ford countered by putting up a bond to guarantee Ford owners against loss and continued his fight in the courts. Eventually he won his case. The courts sustained the Selden patent, but declared Ford was right in insisting that his car did not infringe upon it. By this decision, the entire automobile industry of the United States was freed from a burden that would have materially curbed its development.

"I met Mr. Selden years afterward,"

said Ford. "He was a decent old fellow. But when others began to make automobiles, he got into the hands of those who wanted to exploit the industry by claiming tribute from every motor car manufacturer."

Selden's engine was a low-compression, low-speed device. It had no commercial value and never made him a dollar. But he nevertheless, at an early date, had a dim vision of the automobile. But the world does not pay for dim visions, and it was, therefore, Henry Ford and not George B. Selden, who in January, 1914, astounded the world by a great division of profits among workingmen.

XIII

The Principles That Produce a Profit of $8 a Second

THE rate at which profits rolled in upon the Ford Motor Company during the calendar year of 1921 is almost beyond human comprehension. It was a bad year for business generally. At the beginning of the year, Wall Street interests had made the colossal error of assuming that Ford had "reached the end of his rope" and actually sent a banker to him to arrange a loan and to tell him whom to appoint treasurer of the company. Yet it was in this year that the Ford Motor Company was to break all of its records and produce profits of $75,890,836.44.

No mind can grasp that great figure and at a glance get its full meaning.

It means that the Ford income for the year was at the rate of $242,437 a day, not counting Sundays.

Or $30,304 an hour for each hour of an eight-hour day.

Or $505 a minute!

Or $8 a second!

If actual gold were running at this rate into a box on Mr. Ford's shoulder, he would be crushed before the end of the first day. His daily income is equivalent to more than 800 pounds of gold.

Everything about the Ford fortune is bewildering. The rapidity with which Mr. Ford's billion has come to him is scarcely less remarkable than the billion itself. Even with the complete statement of profits that appears in Chapter XI, it is difficult to fix the year when Mr. Ford had obtained his first million. His share of

the profits had not amounted to a million until 1908. But, figuring another way, he was a millionaire the next year after the Ford Motor Company was organized. The company's net earnings for the year 1903-4 were sufficient to pay 5 per cent. interest upon a capitalization of almost $5,000,000, and Ford owned 25½ per cent. of the stock.

It is interesting to go into the causes that combined to create this unparalleled industrial and financial success. Of course there could have been no success without a car worth the money and a man who knew enough to make it, but we must look further to find the explanation of what has taken place. Mr. Ford has always given much credit to Mr. Edison for a suggestion that he once made as to the proper way to conduct a great manufacturing enterprise.

"Mr. Edison told me years ago," said Mr. Ford, "that quantity production was what every manufacturer should strive for, and he related an incident concerning his father-in-law's business that tended to prove his point."

The next time I saw Edison, I asked him if he remembered what he had told Ford about quantity production. He replied that he did.

"I told him," said Edison, "a story about my father-in-law, Mr. Miller, who was the president of the Buckeye Harvester Company of Akron, Ohio. Mr. Miller had said to me that he was about to make an investment in some other industry upon which he hoped to make a profit of 10 or 20 per cent. I tried to discourage him from doing so by telling him that he could make a profit of 500 per cent. annually by improving the manufacturing

methods in his own business. I cited one operation that required the services of 43 men and told him if he would go to a firm in New York that designed and made special machinery he could have a machine designed that would perform the whole operation with a great saving of labor. Mr. Miller went to see this firm. After going over the matter, he was informed that the machine he desired could be made. Mr. Miller wanted to know the price of the machine. The firm could not quote an exact price, but finally placed a limit of $8,000. The machine actually cost but $5,000, and with two men did the work that 43 had been doing.

"I told Ford this story as an illustration of what can be done with special machinery and quantity production, and added that any manufacturer could make 500 per

cent. a year upon his investment by having special labor-saving machinery designed and manufacturing quantity."

A smile of satisfaction overran Edison's face as he added:

"One of the most remarkable things about Ford is the quickness with which he sees things. For 40 years I have been talking about the development of water power and the establishment of village industries. Ford is the only man to whom I ever suggested this idea who got it and acted upon it."

The whole world knows the story, of course, of quantity production in the Ford industries. But there could have been no quantity prduction upon the scale that exists if there had been lacking in Ford the vision to see other things. In addition to special machinery, the cost of production must be reduced to the lowest point by

taking up every particle of lost motion in production.

Ford once saw a big crane in the Highland Park plant pick up a great weight and come down empty to pick up another.

"That's not right," he said. "A crane should work both when it is going up and when it is going down. Move your cranes a little if necessary after lifting a weight so that you can take something down on the down trip."

There was never a manufacturing institution in the world that had so many power devices to take the load from human muscles as may be found in the Ford industries, and the story about the crane illustrates the Ford idea that lies behind each of them. There must be no lost motion anywhere.

Nor must there be any unnecessary handling of materials. Things must be so

arranged that every move will bring the maximum of results. In the early days, each engine block—a block of steel weighing more than 400 pounds—traveled more than 4,000 feet from the time it was cast until the car in which it was placed ran off under its own power. This distance has been cut to about 300 feet.

But Ford never considers finished the job of trying to figure out ways to make every motion more productive. His nature makes it certain that so long as he lives he will continue to try to discover and cut out the human and mechanical motions that add to the cost of a car, but do not contribute anything to its making. What has been accomplished by quantity production, special machinery and improved factory methods is apparent when the following figures with regard to the number of men employed is compared

with the table in Chapter XI, in which is given the number of cars sold each year from the beginning. It should be noted, however that the table of sales is for fiscal years, while the following table showing the average number of employees at the Highland Park plant is for calendar years. The following table was prepared for this book in the offices of the Ford Motor Company by direction of Mr. Ford:

Year	Average Number of Employees for year	
1903	125	Estimated by Messrs. Hartner, Degener and Wandersee
1904	300	
1905	300	
1906	700	
1907	575	
1908	450	
1909	1,655	
1910	2,773	
1911	3,976	
1912	6,867	
1913	14,366	

1914.....	12,880
1915.....	18,892
1916.....	32,702
1917.....	36,411
1918.....	33,699
1919.....	44,569
1920.....	51,197
1921.....	32,679

This table and the one mentioned concerning the number of cars sold each year are of value only for the drawing of approximate conclusions, since they are not for precisely parallel periods; and for the further reason that the latter table does not include the labor employed by outside concerns in the manufacture of parts. It is therefore impossible to divide the number of cars sold, by the average number of men employed, and say that the result is the number of cars that each man made in a year. But the Ford Motor Company

now manufactures more of its parts than it did in the beginning and the productivity of labor, as derived from the foregoing tables is therefore even greater than the figures indicate.

What do the figures indicate?

If we divide the 1,695 cars sold in the fiscal year 1904-5 by the average number of 300 men employed during 1905 we find that each man made an average of 5 2/3 cars during the year.

If we divide the 933,720 cars sold during the fiscal year 1920-21 by the average number of 32,679 men employed during the calendar year of 1921, we find that each man produced 28½ cars. In 1920 the output was 18 cars to each employee. The output in 1921 may not have been quite 28½ cars per man as some of the cars sold in 1921 were made in 1921.

If we compare the 32,679 men employed

during 1921 with the 32,702 employed in 1916, we find that in the fiscal year of 1915-16 but 472,350 cars were sold as compared with 933,720 made by a slightly fewer number of men in the fiscal year 1920-21. It will be noted that during the fiscal year 1916-17 there were made and sold 730,041 cars which were perhaps produced by approximately the same number of men employed in part of the preceding fiscal year, but even the higher product for these two fiscal years is 203,000 fewer cars than were produced in 1920-21 by practically the same number of men.

What is the answer?

Improved Ford methods. There is no other answer. Early in 1921, Ford shook up the Highland Park plant with a vengeance. The men worked no harder that year than they did in any other year, but Ford worked harder. He thought more,

and the result of what he thought is shown in the year's product.

A study of these two tables is a tremendous demonstration of what brains at the head of industry can do. In 1921 when Ford broke all records for profits and production, the Pierce-Arrow Company lost $8,000,000 and the General Motors Company showed a book deficit of $38,000,000 and an operating profit of about $5,000,000.

But to make a useful thing with the maximum of efficiency are but two steps toward maximum production and maximum profits. If the Ford car were sold for $2,000, the profit over the present manufacturing cost would be greater, but the market would be so narrowed that there might be no profits at all at the end of the year.

From the beginning, Ford thoroughly

understood that a small margin of profit on each car would mean more sales and more profits at the end of the year than a large profit on each car. Ford marvels that so few American manufacturers see this. He believes they often kill their own market by keeping their prices high.

Ford told me an amazing little story to illustrate this point. His old "boss," Alexander Dow of the Edison Company, came out to Dearborn to persuade Ford that he was making a mistake in considering the cutting off of the Edison current and the manufacture of his own electricity for power. This is the story as Ford told it:

"'Now don't be a fool, Henry,' Dow said to me. 'We can make current for less than you can. In your cost figures, you have not included interest on your plant.'

"I replied that I did not need to figure interest upon the cost of the plant in

which I intended to make current because the plant was paid for."

Dow could not understand that. What American manufacturer could? Here was a man who had built a plant at the River Rouge for which he had paid $40,000,000 and in fixing the cost of his product he did not include the interest upon the money invested merely because the plant was paid for!

Yet Ford's $75,000,000 of profit in 1921 was based upon just such figuring. In fixing the selling price of automobiles and tractors Ford includes nothing for interest upon the money invested for buildings and machinery. He believes the whole idea of interest is wrong. He accepts interest upon his bank balances, because that is the way of the world and he would benefit only bankers by departing from it, but he has scrapped the idea of interest in his own

properties in arriving at costs of production and selling prices. Yet he has $200,000,000 invested in buildings and machinery upon which other manufacturers would figure interest in fixing production costs and selling prices.

"It is all a matter of bookkeeping anyway," said Ford, "and the trouble with a lot of manufacturers is that they 'bookkeep' themselves out of business by adding to their cost of production every possible item. The fundamental idea to keep in mind is quantity production. There can be no quantity production, that is what it might be, if excessive profit on each unit narrows the market. What every manufacturer should strive for is to put his product within the reach of the greatest possible number of persons. To do that means to render the greatest possible public service. Render the service and the pub-

lic will pay the manufacturer for his trouble. That is the way I look at it. As I have said so often, a manufacturer should not think of piling up profits. He should think only of making the best product he can and selling it at the lowest safe profit. But if a manufacturer were trying to make the greatest possible annual profit, the poorest way to go about it is the way so many of them do—to include in their costs interest upon their investment and every other possible item in order to justify a high selling price for each unit. The only figures that are important are the figures that come at the end of the year. These figures will be higher if no interest is charged upon investment and the selling price is kept at the lowest possible point."

In 1920-21 Ford reduced the price of his touring car from $575, where it was at the close of 1919, to $348 and the price of

his tractor from $750 to $395. As everybody remembers, he smashed war prices again and again, while others were saying that prices could not be much, if any, reduced.

Such is the secret of Ford's great industrial and financial success: (1) A useful device developed to the utmost; (2) Special machinery and the best shop methods to make possible quantity production at low cost; (3) The narrowest safe margin of profit on each unit to make possible a large market and real quantity production; (4) Large annual profits to be derived from the aggregate of a great number of small profits rather than from a smaller number of greater profits. There, in a nutshell, is the business philosophy that, in a few years, has brought Henry Ford properties worth a billion dollars.

Ford went into a Detroit shoe store in

the winter of 1921-22 to be measured for a shoe-model. While the clerk waited upon him he took advantage of the opportunity to ask the great manufacturer when he believed business would be back to normal. Ford answered him by asking some questions.

"How much would you charge a man like me for a good pair of walking shoes?" he inquired.

"Oh, about $14," said the clerk.

"How much would you have charged before the war?"

"About $6," said the clerk.

"Well," said Ford, "business will be normal again when you charge $6.50 for those shoes."

Ford has cut his own prices below what they were before the war. Of course he was big enough industrially and strong enough financially to compel those from

whom he bought his raw materials to reduce their prices to what he regarded as reasonable figures. The little man, of course, could not do this. But Ford holds firmly to the belief that there need have been no hard times in the United States if business men had been willing to forego big profits.

"They lost their profits anyway," he said, "by killing the market with high prices. They could have kept all the profits they were entitled to and kept business booming if they had been willing to reduce their prices, as we did."

Whoever disputes this statement would seem to assume some sort of an obligation to explain why Ford, in the bad year of 1921, made more cars and more profits than he ever made before in a single year.

XIV

"The Year We Went Broke"

IN the Ford offices, 1921 will perhaps always be known as "the year we went broke." This facetious phrase is double-bladed, referring as it does to two astounding facts. One fact was that the Ford profits that year were the greatest in the company's history. The other fact was that Wall Street convinced itself that Ford was "broke," and would soon lose control of his industries. "We have got him at last" was the word that was quietly passed around the country.

Wall Street stubbed its toe on Ford in 1921, and stumbled into the picture of one of the greatest scenes in his life. Great

things were doing in Ford's office that year, but Wall Street would not have figured in their telling if it had not blundered in.

I know of no period in Ford's life up to the present time when his mind gave so many indications of "hitting on all 12," as it did in the operations that we are about to describe. We shall see Ford now, not as the marvellous mechanic, but as the marvellous industrial and financial administrator.

A serious situation began to develop, early in 1920, all over the country. War prosperity was collapsing. Failures increased. Business slackened. As summer began, the slump hit Ford. In September, he cut the price of his car below manufacturing cost. Business picked up for a little while, and then fell off again. To create a market for itself, the price of the car needed to be cut some more, but Ford

could not cut it because those from whom he bought raw materials insisted upon sticking to war prices.

It was at this point that Ford threw his mind into "high" and began the execution of what seems to me to have been the most brilliant piece of administrative strategy that has thus far marked his career.

His problem was this: To smash down the prices of raw materials so that he could still further reduce the price of his car and thus smash his way into a larger market for automobiles. What he purposed to do was to get everything ready, then shut down his plant and let the high-priced gentlemen stew in their own juice until such time as they were ready to sell raw materials to him at pre-war prices. It was a powerful weapon that he purposed to use. The Ford industries took the entire product of some concerns and were the

chief customers of the others. When Ford's wheels ceased to turn, their wheels stopped and they were left flat with materials on their hands and their best customer's orders cancelled.

"I knew something drastic had to be done," said Ford, "and was determined to do it. When the war ended, the excuse for war prices ended, but those who sold us raw materials did not seem to know it."

What Ford did in the fall of 1920 was to cease buying raw materials while running his great Highland Park plant at full speed to work up accumulated stocks. Orders did not justify so much production, but Ford wanted to have all stocks on hand converted into finished goods when the shut-down came that he—and only he—knew was coming.

Late in December, 1920, Ford gave the order to stop the great Highland Park

plant and 90 acres of whizzing wheels came to a standstill. At the same time, he gave orders to "clean up" in the company's 35 branches—to assemble into cars the parts on hand and turn them into cash.

"It was while we were doing this," said he, "that I had to turn to give consideration to a financial problem that had been coming on for some time. We had borrowed $70,000,000 in 1919 to buy out the other stockholders in our company. Of this sum we still owed $33,000,000, which was to fall due on April 18. On April 15, we also had to pay $18,000,000 income taxes. We wished, furthermore, to pay a bonus of $7,000,000 to our men. Altogether, we had $58,000,000 to pay and only $20,000,000 in cash on hand.

It was these figures that convinced Wall Street that Ford was "broke," that he must have a loan, that he must accept eastern

cash and relinquish control of his industries.

Wall Street had misinterpreted Ford's strategic move against dealers in raw materials and underestimated his financial agility. The fact that the Highland Park plant had been closed, first for two weeks and then "indefinitely," was construed as a sign of distress due to lack of orders instead of the tactical move that it actually was. The fact that Ford, in January, had but $20,000,000 with which to pay $58,000,000 in April was considered proof that he could not weather the storm and must have a "loan" that would drive him from his own office.

Wall Street, early in 1921, sent a banker to see Ford. The Wall Street gentleman whirled out to Ford's house in a big car, rang the bell, was admitted, and soon faced Ford. There were few preliminaries.

Wall Street had heard of Ford's troubles and was there with the money to "save" him. The plan for saving him was in writing. The gentleman would read it, and Ford, as a matter of courtesy listened, tho he had insisted that he had no need of a loan. In the middle of the reading, the gentleman stopped to inquire who was to be the company's next treasurer, the office having recently been vacated.

"What is that to you?" Ford inquired.

"It is everything to us," the banker replied. "We shall have to be consulted as to who is named for the post."

Ford could stand no more. He gave the banker his hat, opened the door, and told him to be gone. The next time Ford saw his son, Edsel, he told him that he was to be the Treasurer as well as the President of the Ford Motor Company.

What Ford did to turn a $20,000,000

cash balance into enough to pay $58,000,000 was to realize on his assets and tighten some loose joints in his organization. He had in hand, for instance, when the Highland Park plant was closed, 93,000 finished cars. In January, nearly 60,000 of these cars were sold. Cars assembled from parts in 22 branches brought sales from stock to $24,700,000 by April 1. Foreign agents were called upon to remit $3,000,000 that they owed and did so.

The sale of by-products brought in $3,700,000 more. Liberty bonds were converted into $7,900,000 in cash. Already Ford had increased his bank balance to $59,300,000 with which to pay $58,000,000.

Ford was not through, however. He saw a chance to release $28,000,000 invested in raw materials by speeding up railway shipments. He had recently acquired the Detroit, Toledo & Ironton Rail-

road. By reducing the time of goods in transit he cut down from 22 to 14 days the period that elapsed between the shipment of raw materials and the re-shipment of the same materials in the form of finished cars and the receipt of these cars by dealers. So great is the Ford output that this saving of eight days released $28,000,000, which until then had been tied up in stock.

All these moves ran Ford's bank balance up from $20,000,000 to $87,300,000, and he paid the $58,000,000 weeks before it was due.

And, after a six-weeks shut-down, the dealers in raw materials having come down to pre-war prices, the order was given to start the Highland Park plant.

Such is the story of "the year we went broke"—and made a profit of more than $75,000,000. Ford insists that what he did

was "perfectly simple," and in reading about it, it seems simple enough. Yet Wall Street could not see Ford's way through the tangle and believed he was wrecked. It may be added that a high official of the Ford Motor Company could see nothing simple about the problem. Asked what he suggested, he replied that he could see nothing to do but borrow $40,000,000 or $50,000,000. Ford received the suggestion in silence, but after leaving the meeting, gave orders to discharge the man immediately. Ford can be stern and even harsh when he believes the occasion demands. He was determined that Wall Street should not lay a finger on his industries and resented anything that suggested such a procedure. Moreover, he was entirely confident of his ability to get along without a loan.

Ford has always hated Wall Street and

Henry Ford and His Son, Edsel

"I had no need for your money—we have more money on hand than we know what to do with—but it is worth the sum that I pay you for interest to know what you bankers are after."

It is not my understanding, however, that Ford has any feeling against individual Wall Street bankers. He has told me, on different occasions, of conversations he has had, on general topics, with some of the biggest men in "the Street." It is the banking system represented by Wall Street against which Ford is up in arms. He believes this system is organized to prey upon industry.

"A speculative banker never wants to make anything," he said. "He always wants to exploit what somebody else has made."

That is why the banker who went to Ford's Dearborn home in 1921 quitted the house by invitation.

XV

Ford on Manufacturing

INASMUCH as Mr. Ford is the greatest manufacturer in the world, I once asked him what advice he would give to a man who was about to begin business as a manufacturer.

"Every manufacturer," he replied, "should be able to go into the shop and with his own hands make the thing that he wants to manufacture. If he can not do this, he is no manufacturer at all, and should not be in the business. A man but exploits his workingmen when he is at the head of an industry that he does not understand. His workingmen are the real manufacturers, and he is but a parasite that lives upon them. One of the reasons why

many industries can not pay higher wages and reduce the price of their products is because they are managed by men who have not the ability to make the things in which they deal. A man who knows how to make a thing is the only man who has the first qualification for being a manufacturer."

I asked Mr. Ford what was the most important thing for a manufacturer to remember in buying raw materials, fixing the price of his product and fixing the wages of his employees. He replied:

"If a manufacturer knows his job he will know what raw materials are worth. If he realizes how important it is to have a market he will fix the price of his product at a very small margin above the cost of production, and depend for his profits upon the volume of business thus created. As to wages, hours and condi-

tions of work, he should realize that men work best and produce most when they feel that they are getting a square deal."

"What is the mistake," I asked, "that is most likely to wreck a manufacturing business?"

"For the man at the head of the business," he replied, "not to know his job. He will not buy his raw materials at the right price, he will exact too much profit and thus destroy his market, and he will scrimp on wages and thus decrease the productivity of his employees by making them dissatisfied."

I asked him what were the principles underlying his theory of production and shop management.

"The main thing is to make every move count," he replied. "In most places there is too little thinking in the office and too much lifting in the plant. We found that

our engine blocks were traveling more than 4,000 feet from the time they entered the plant until they were installed and ready to run away under their own power. By a little planning, we reduced this to 300 feet. Considering that we make a million cars a year, you will see that we saved carrying 300,000,000 pounds of steel two-thirds of a mile. Conveyors, electric cranes and other similar devices should be used to the fullest extent.

"The machines in a plant should of course be so arranged that as one operation is completed, the machine upon which the next operation is to be performed is right next. If, at a certain point in the process, heat is to be applied to the metal that is being machined, the forge should be placed next to the machine upon which the last operation is performed prior to the heating. And. the surplus heat from

the forge should be saved. Nothing should be wasted. A manufacturer who will master these principles and apply them intelligently will have a low cost of production. I assume that he will know enough to have special machinery designed, whenever possible, to save labor. We have some machines, operated by one or two men each, that do the work of 40 men."

I asked Ford what he would do if called upon to take charge of a manufacturing business that was failing because of excessive cost of production?

"The first thing I would do," he said, "would be to see if the plant was clean. It is a hundred to one that I would find it dirty. If so, I would clean the place, from end to end, before I did another thing. There is nothing that so demoralizes workingmen as a dirty shop. A dirty

shop drives away good men and attracts bad ones.

"Then I would see if the thing that was being manufactured was designed right. Many a thing just falls short of success because of some shortcoming in design. I might also find that there was not a sufficient field for the thing that was being made. Maybe the public does not want it. A manufacturer who knows his business can sense what the public wants. I do not know of a clearer way to put it."

Then I asked Mr. Ford two or three questions that brought forth a series of emphatic answers.

"What advice," I asked, "would you give to a merchant or a manufacturer with regard to the advisability of going into debt—to expand his business or for any other purpose connected with his business?"

"The merchant or manufacturer who goes into debt for any purpose is the biggest fool in the world," he replied. "Rather than go into debt, I would start over again. If you can not pay for a thing, don't have it. Of course, this does not refer to people who want to go in debt to buy homes. That is different."

I asked Mr. Ford if he did not borrow $70,000,000 to buy out his minority stockholders.

"Yes, we did," he replied, "but we had the money to buy them out if we had cared to use it."

I next called the attention of Mr. Ford to a remark attributed to John D. Rockefeller to the effect that the greatest problem connected with his business career had been to borrow enough money to carry on all the business he could find to do. That was what brought Ford up standing.

"I don't believe Mr. Rockefeller ever said it," he replied. "I don't believe he ever said it."

"I saw Rockefeller quoted to that effect, the other day, in the Wall Street column of a very responsible New York newspaper," I said.

"I don't care," said Ford. "I don't believe Rockefeller ever said it. It is my belief that if you would trace that thing you would find that it had its source in banking circles. Bankers are in the business of lending money. It is to the interest of bankers to have merchants and manufacturers believe that it is good policy to borrow. I know it is bad policy. Nobody could convince me that Rockefeller ever said anything to the contrary. Rockefeller is no fool."

From money and machinery, I shifted the line of questioning to men, asking Ford

what type of a man he would select as a high executive in the manufacturing department, or the head of a purchasing or sales department.

"The first thing I would consider," he replied, "is health. I would never choose a man who looked sickly, weak or run down. A man who is entitled to hold a high position must at least show by his looks that he knows enough to take care of himself. A man who does not care enough about his own body to take proper care of it and keep it in a high state of efficiency is not likely to care enough about somebody else's business to give it efficient management. It is especially necessary that a man connected with buying or selling should be a strong, vigorous man. The world does not pay much attention to weak men, or men who look as if they were in poor health.

"But I do not feel as some men do about men 40 or 50 years old. Some people think that a man of this age is no good, or at any rate, has largely outlived his usefulness. I do not see it that way. I do not think a man is much good until he is at least 40. Some men who reach 40 or 50 without having accomplished much think they are failures. They may be failures, but if so, it is because they were born so. It certainly is not because age has made them so. No man should think of beginning business or doing anything worth while until he is at least 40. Until that time, he should be learning his business—getting ready to do whatever he wants to do. Many a man at 40 or 50 is like a finely sharpened tool. His experiences and observation up to that time have given him a keen cutting edge and he is ready for business."

I asked Mr. Ford whether he was most

impressed by self-assertiveness or quiet men.

"You have to judge them on the spot," he replied. "Some men talk a great deal the first time you see them because they know nothing about the subject and are trying to hide their ignorance in a fog of words. Other men are silent because they lack information, confidence in themselves, or something. There is no rule, that I know of, as to this. A man may be able and be either talkative or reticent. As I said, you have to judge them on the spot. It is not so hard to do, at that."

I asked him what kind of workingmen he preferred.

"Healthy," he replied.

In connection with Mr. Ford's statement that no man should begin business until he is 40 years old, it is interesting to recall that the Ford Motor Company was

organized when he lacked but a few days of being 40.

It is also interesting to note that when Mr. Ford took over the Lincoln Motor Company, the first thing he did was to put 100 janitors at work with soap, scrubbing brushes and pails of water. A few days after Ford took charge, I asked him what he was doing at the Lincoln plant.

"What did I tell you I always did the first thing when we take over a new place?" he asked.

"Clean it up," I replied.

"Well that is what we are doing at the Lincoln. While it was in the receiver's hands it became dirty. We are cleaning it up."

XVI

Ford's Fortune and Its Meaning to Him

ONE day, I nerved myself to the point of asking Mr. Ford how much he was worth, prefacing the question with suitable remarks to the effect that it was asked only to satisfy what seemed to be legitimate public interest.

We were sitting at luncheon. As his guest, I realized that the question might seem to him to be impertinent, yet I had to risk it. But his first word quieted my fears.

"Do you mean how much money we have in the bank?" he asked.

I replied that I should like to know not only how much the Ford Motor Company had in the bank, but how great was his personal fortune.

"I don't keep very close track of what we have in the banks," he replied, "as my son Edsel, our treasurer, attends to that, but it just happens that I know what we had yesterday. Edsel, myself and some others were sitting around a table discussing something that would involve an expenditure. At one point in the conversation, Edsel passed a slip of paper to me under the table upon which was written: "I guess we could do this if we wanted to. Our bank balance to-day is $121,000,000."

In introducing the subject of money, I had not expected that Mr. Ford would tell me what was the company's cash balance at the moment, and the fact that he did so without hesitation emboldened me to press the question as to the size of his personal fortune.

"We have about $100,000,000 worth of machinery, $100,000,000 worth of build-

ings and something more than $100,000,000 in cash," he continued, "but I have no doubt that we could capitalize what we have for a billion dollars and sell the stock, if we wanted to."

Weeks later, when Mr. Ford gave me a mass of data about his company, including a statement of its annual profits from the beginning, I saw how moderate was his estimate of a billion dollars as the amount for which his holdings could be capitalized. Wall Street capitalizes upon the basis of earnings. The earnings of the Ford Motor Company for 1921 were $75,890,836.44. These earnings would pay annual dividends of 5 per cent. upon a capitalization of $1,517,816,728. Mr. Ford's fortune, based upon the earning capacity of his holdings, is therefore nearer a billion and a half than it is a billion. And since Mr. John D. Rockefeller, Jr., in 1920

wrote a letter to the New York *Times* denying that his father was a billionaire, it follows that Henry Ford is not only the richest man in America, but the richest man in the world and the richest man who ever lived.

I asked Mr. Ford what his fortune meant to him.

"It means nothing to me," he replied, "except that I have a job. My son Edsel feels the same way about it. We feel that we have a job; that's all.

"We have a big sum in bank, but what of it? What we have in bank means nothing to me except that it keeps our industries going. Our bank balance is to our industries what a belt is to a machine, a flywheel to an engine or an electric cable to a motor. We pay half a million dollars a day to labor and three-quarters of a million dollars a day for raw materials. A

bank balance of $121,000,000 therefore means only that we have enough on hand to pay our running expenses for about three months. We could not operate if we did not have a big cash balance. And since this balance is for use only in our business, it means nothing whatever to me, personally."

This conversation required but a few minutes, yet on the way back to the office, an employee of Ford who has been close to him for years said he had never heard so much talk about money in all the time he had been with the company.

"Mr. Ford never talks about money," he said. "It is a subject that I never heard discussed around here until to-day."

What he meant was, of course, that money is not discussed around the Dearborn experimental laboratory where Ford stays most of the time. As the directing

genius of the Ford industries, Ford of course has to dip into finance now and then, but what his friend meant was that he never talks about how he can make more money or exults over what he has made. Except upon the occasions when I asked Ford to discuss money, he never mentioned it except in connection with plans to reduce the price of his car and his tractor.

I once asked Mr. Ford whether he was happier when he realized he had made his first $20,000 or when he knew he had made his first million.

"My happiness has never changed," he replied. "It has always been the same as it is now."

At another time, I asked him what his fortune meant to him in terms of happiness.

"I think I am about as happy as anyone in the world," he replied.

"Do you think you are any happier than I am?" I asked.

"No, I don't think I am," he replied after a momentary pause.

"Did you ever, in your youth, think that some day you might be wealthy?" I asked at another time.

"No," he replied. "I never thought of money at any time. I am not wealthy now. I just have a job."

Upon another occasion I asked him what his feelings were when he first realized that great wealth seemed likely to come to him.

"I realized that with money I could do big things that, without money, I could not do. That was my only feeling about it."

"Does the mere ownership of wealth

give you no pleasure whatever outside of the consciousness that with wealth you can do the big things that you want to do?"

"No, he replied, "it does not."

"Is there anything you would rather have than another billion dollars and, if so, will you tell me what it is?"

Mr. Ford waited a few seconds before he replied, then he smiled and said: "Muscle Shoals." A moment later, he modified this answer by adding: "No, I don't want another billion and I don't want anything else."

One hears stories, all over the country, to the effect that Ford was once very poor and that, after he built a gasoline automobile that would run, he was unable, because of poverty, to buy a turkey one Thanksgiving Day. So I once asked Mr. Ford if, when he was a boy, away from home, he ever missed a meal for lack of

money or underwent any other hardship because of poverty.

"No, I never did," he replied. "I was never poor. My father was a well-to-do farmer and after I left home I always earned all the money I needed. That story about the Thanksgiving turkey is all bosh."

One day, Ford, while in conversation with two other men, turned to me and asked me to define happiness. Suddenly confronted with the question, I replied that it was the state of mind created by the satisfaction of one's just desires.

"But what are just desires?" he asked.

"Those desires," I replied, "the gratification of which injures neither one's self nor anybody else."

"That's it," he commented. "That's happiness—the condition in which one is compelled neither to command nor obey."

Later in the day, I brought up the sub-

ject again and asked him how he could reconcile his statement with regard to his own happiness with his other declaration that one could be happy only when he neither had to command nor obey. I said that while he did not have to obey anybody he had to command a great many persons—an army of 60,000 workers, among others.

"I don't command anybody," replied Ford. "I have men about me who do not have to be ordered to do what I want done. I have only to suggest that a thing be done and it is done."

I said that the essence of command lay in imposing his will upon others, and that it mattered not that he enforced his will by giving "suggestions" instead of orders. He did not reply.

When Mr. Ford gave me the statement of the Ford Motor Company's annual

profits from the beginning to January 1, 1922, I said to him that I thought that he, within 15 years, would be one of the nation's greatest problems.

He looked up quickly and asked what I meant.

"You are a billionaire now," I replied, "and you have never had more than 60,000 men at work for you. You talk of having a million more men at work for you at Muscle Shoals or in industries that you may establish along the Mississippi River. Having accumulated a billion in a few years with 60,000 employees, how many billions will you have a few years after you have set a million more men at work?"

"I never thought of that," he replied.

"But you never thought when you started the Ford Motor Company that you would ever have a billion," I said.

"No, I didn't," he replied.

Whenever I brought up the subject of money, as I occasionally did during the months that I spent in Mr. Ford's office, he answered my questions frankly, but without relish. He seemed to be frank as a matter of duty. He had promised, reluctantly, at the beginning, after one absolute refusal, that he would give me whatever information I required for this book—and he kept his word. But when my questions turned to his achievements or his fortune he always showed plainly his distaste for such subjects.

XVII

Ford's Office

IN the old tractor plant at Dearborn, which is now used as an experimental laboratory, is a little room, perhaps 15 feet long by 12 feet wide, that is lighted in daytime by only a skylight. The room is in the interior of the main building, and there is not a window in any of its brick walls. It was in this room that Ford designed his tractor, and it is this room that is now his office.

When I went to Dearborn to get the material for and write this book, some of the Ford employees were arranging a desk at which I might work when Ford heard of it and said to me:

"Come in my room and write your book.

You can have a typewriter brought in and anything else you want."

It was an excellent suggestion, because Ford's office is the only room in the building that is seldom used. Ford believes that a man who sits in his office is not fit to run a business.

Let us first take a little look around the room. The walls are high and roofed with glass. On one wall is a battery of steam pipes that run back and forth the whole length of the room to supply heat. There is some kind of a rug on the floor, and in the center of the room a big flat desk. Ford's chair is so placed that it faces the door. A leather chair is in the corner at Ford's right. Two or three wooden chairs are scattered around the room.

On the desk is the shell of a commutator and two spark plugs. I do not mean that these things are always here, but they hap-

pen to be present at the moment when this is written. A little pair of pincers lies on the right-hand side of the desk. Half a dozen copies of the *Atlantic Monthly,* a year old, are neatly piled up near the pincers. A day or two before this was written, Ford had one of his secretaries bring in and place on the desk a curio that he wished to show me. The curio was something that a convict, years ago, made and sent to him. It was a glass-inclosed cabinet about ten inches high and a foot and a half square, in which the prisoner had placed all the paraphernalia of a complete and thriving gambling house. The gamblers, seated in little chairs, had all been whittled out of peachstones. Little peachstone men were playing roulette, faro, poker, keno and everything else that indoor gamblers play. The work was done exquisitely, considering that it was done by

an amateur, and I remarked that by enabling the prisoner to forget, the work has doubtless brought him many months of something akin to happiness.

"That is just it," said Ford. "This man wrote me that he made this thing to show what had brought him to prison. Gambling did it. Work is what people need to make them happy and keep them from going wrong."

The curio was received years ago, but Ford still has it and left it on his desk when he finished showing it to me. He kept track of the man after he left prison, and read me a report with regard to him, in which it was stated that he had gone into business, had kept straight and had achieved a modest degree of success.

The walls of this little room are all but covered with pictures. When one is seated in Ford's chair, the first picture

that catches his eye is a large photograph of the Prince of Wales—a bust picture, perhaps half life-size.

Ford thinks very highly of the heir-apparent to the British throne.

"I met him twice when he was over here," said Ford. "He is a fine fellow—democratic and decent. I think he is the hope of England."

Immediately back of Ford's chair is quite a large painting of Ford's old home on the farm, with the house standing back in the distance and the barn to the left. The house is one that Ford built himself out of lumber that he himself sawed. It is the one in which Mr. and Mrs. Ford first lived after they were married.

At the other end of the room are two pictures and a letter framed together. The letter, which was written in London during the war, told how Ford automobiles

had saved a detachment of British soldiers from starving. The soldiers were in an out-of-the-way place to which supplies were sent up a river by boat. The water in the river fell so low that boats could not run. In this emergency, flatboats that drew but a few inches of water were improvised. A Ford touring car was run on to each boat, the rear of each machine well to the rear of the boat. The back wheels were removed and small paddle wheels substituted, with the result that the boats were driven up-stream and the soldiers fed. The photographs show the boats plowing through a few scant inches of water with Ford cars as power plants.

Scattered in many places on the walls are pictures of Ford, Edison and Burroughs as they appeared when spending vacation days together. Over the door is a large blue-print of one of the Ford

plants. In a corner at the left of Ford's chair is a small bookcase filled with miscellaneous books, most of which have something to do with business.

This is Ford's office. Ordinarily nobody enters it except Ford, and he goes into it infrequently.

"A man who is managing a business," said Mr. Ford to me, "has no right to sit in an office. A manager's place is everywhere. He should be moving about. Ten or fifteen years ago, when I was a good deal more active than I am now, I was on the go all the time."

Mr. Ford was never more active than he is now. He no longer watches the Highland Park plant as he once did, and it may, therefore, seem to him that he is slowing up a bit, but those who work with him and around him would smile at the suggestion that he is less active than in former years.

Ford is moving most of the time, and his office is everywhere. In pleasant weather he holds many important business conferences in the woods, on his farm. Or a conference may be held in any one of numerous suitable buildings on his big estate. When he desires to hold such a meeting, he has a secretary telephone to the men with whom he wishes to confer, requesting them to meet him at a designated spot at a certain hour. The meeting may be under a tree, in the sugar house or in an old barn. Engineers, lawyers, superintendents and others respond to the call. This is one of Ford's ways of doing business.

Ford has no stenographer, and seldom dictates a letter. He has two telephones on his desk, one of which is a private line running to his house and to other buildings on his farm, but seldom uses either. When he does use a phone, he usually begins

with a very cordial "Hello there," and speaks rather loudly, with vigor and precision. If Ford had not been a farmer, a mechanic and a manufacturer, I believe he might have become a very good public speaker. I heard him make, years ago, what I think was the only public address he ever made. The address consisted of only four or five sentences and was delivered with the maximum of pain and embarrassment. It reminded me of what Edison once told me about the only article he ever wrote for publication.

It was only a short article that the *Scientific American* induced me to tackle," said Edison. "I thought it would be nothing. But pretty soon I noticed the sweat begin to pour down my face. I never attempted anything so difficult in my life. I wrote only three or four pages of manuscript, but nothing could induce me ever to

try to write another article for publication."

Ford must have suffered as much when he made the speech that I heard in Washington years ago. Yet almost anyone without experience would have fared no better. The manner in which Ford talks over a telephone gives a hint of what he might do before an audience if he were to take the plunge and go at it. He always knows what he wants to say and goes straight to the mark. When Ford speaks listlessly and sluggishly it is because his interest is somewhere else. In action, he is direct.

"Anything that will not work should be broken," he said to me in his office one day when I told him I had refrained from pulling too hard on a ventilator cord that he was trying to manipulate, lest I break it.

Ford is always quiet until he makes up

his mind what to do, and then he goes through with it as if there were not the slightest doubt in his mind that the course he had decided upon was not only correct but by all means the best course he could have chosen. And there isn't the slightest doubt in his mind.

I thought many times while I was working on this book in Ford's office of how at first necessity and later choice had caused him to do in little places the great things that have marked his business life. He made his automobile in a shed and his tractor in a room so small that no corner grocer could keep his stock in it. And now that he is swinging a billion dollars' worth of properties, that little room is the only office that he uses.

XVIII

Ford's Revolutionary Ideas on Farming

HENRY FORD will necessarily be remembered in the United States for centuries, and often, when he was talking to me, a little inquiry arose in the back of my head as to the thing for which he would be best remembered. After much consideration, I reached the conclusion that future generations would honor Ford most, not because he acquired a billion dollars by paying better wages and selling good automobiles for less than anybody else; nor because of his marvelous ability as an industrial organizer; nor because he took the first great steps to stop the waste of water power; but because he revolutionized agriculture.

FORD'S IDEAS ON FARMING

Mr. Ford has not yet revolutionized agriculture, but he is revolutionizing it. The most ancient of the arts of civilization is taking new shape before our eyes. I will hazard the opinion that in another 20 years the agriculture we have always known will seem as primitive as Daniel Boone. And all because of what Ford has done, is doing and will do.

Henry Ford is the first man in 20 centuries who has evolved a fundamentally new idea with regard to farming. It is because of this lack of new ideas that farming is to-day, so far as the farmer is concerned, substantially what it was 20 centuries ago. The farmer to-day has his telephone, his automobile, his city newspaper and his rural free delivery, but he is just as much the slave of his farm as he was 2,000 years ago. His work is never done and his freedom never comes; and

what is true of him is true of his wife. He is the very foundation upon which our civilization is built, yet he is a drudge, and always near the poverty line. For 50 years there has been a steady increase in the percentage of farm lands operated by tenants, which is but another way of saying that, try as they will, farmers can not get enough money from their labor to enable them to own the land they till.

The seriousness of this situation can not easily be over-estimated; and it therefore follows that it would be all but impossible to overestimate the value of the service that would be performed by the removal of the situation.

Mr. Ford has ideas that will transform agriculture and these ideas are, one by one, being placed in operation. What he ought to do at this time, and what I often urged him to do, is to start a farm paper,

give it a great circulation and quickly put the new vision in every farmer's eyes.

"You are the only man," I used to say to him, "who could run a farm paper and tell farmers how to make money. All the other farm papers tell them only how to keep on losing money"—which I believe is substantially true.

But Ford is busy with many great undertakings and probably will never get around to the farm paper.

Ford would simplify, systematize and organize farming, doing a year's work in not to exceed 25 days.

I once asked him what was the first thing he would do if he were to take charge of American farms.

"Tear down all the fences," he said. "Fences interfere with the operation of machinery and prevent some of the land from being tilled."

"But what about animals over-running your crops?" I asked.

"There wouldn't be any animals," he replied. "There is no reason why any farmer should have horses. Tractors are better and cost much less. Better milk can be and has been made out of vegetable products than any cow can give. The cattle that we need for food and the sheep that we need for wool should be raised on great ranges in the West. The rest of the farmers should have no cattle or sheep. Aside from the cattle and sheep ranches in the West, there should not be an animal on any farm.

"The day is nearly past," he continued, "when farmers will be the slaves of their animals. Just think what this slavery means to the farmer and his wife. It is almost impossible for either of them to leave home for more than a few hours. The

farmer must get up early in the morning, feed his stock and milk the cows. His wife must take care of the milk and make butter. At night the stock must be fed again and the cows must be milked again—and again the farmer's wife must take care of the milk. All through the winter, horses —that will not do a day's work on the farm until the next spring—must be fed, and when the horses go to work they plow less land for a dollar's worth of feed than a tractor will plow for a dollar's worth of gasoline.

"There is no place for a horse on a farm. Everything that horses now do should be done by machinery. The heavy work that farmers now do should be done by machinery. Do you suppose we let men lift and tug at heavy weights in our industries? We do not. We let machinery do the lifting and tugging. A tractor is a power

plant that can not only plow but grind grain, saw wood or do anything else for which power is required.

"When it comes time to plow, cultivate or harvest, farmers should go at the job with several tractors, plenty of machinery and do the thing up in a hurry, hiring as much outside help as may be necessary. Farm machinery can and will be made low-priced enough so that every farmer can afford to have as much as he needs and when it is not in use it can be stored where it will not deteriorate. Hiring extra help on occasions is not extravagance. The more quickly the job is done the more quickly the farmer can be released from his farm to earn money somewhere else."

Mr. Ford's idea is that every village should contain local industries, run by water-power if possible, in which all the farmers in the surrounding country can be

employed when they are not at work on their farms.

"Some of the finest workmanship in our cars," he said, "is performed in little shops that we have established on water power sites in villages around Detroit—shops in which only one thing is made and made well. Every village should have such industries. It is to the interest of manufacturers as well as of farmers that there should be such village industries. Waste water power can often be utilized and that decreases the cost of production. Lots of little things can be manufactured in country towns better than in cities.

"As it is now, farmers waste most of their time. What I mean by wasting their time is that they are employed only a few days in the year at productive labor. The rest of their time they waste by taking care of animals or by doing things by hand that

should be done in a jiffy with machinery. A farmer has his year's wood to cut, we will say. With a tractor to haul trees out of the woods and drive a saw to cut them up, a year's supply of wood can be provided in a very short time.

"Think of what it would mean to the farmers to produce more crops in 25 days than they now produce in 365 and have the other 340 days, except Sundays, to earn money in village industries. You may say the village industries might not want to shut down when farmers wanted to put in or harvest their crops. There is no reason why they should not shut down. We let our village workers go home to work their farms whenever they want to, and are glad to do so. Manufacturers will simply have to get this idea; that's all. It is the way an important section of industry is going to be conducted before very long."

Mr. Ford was asked if he believed farmers would be able to hire workers with which to sow and harvest crops in quick time.

"Why not?" he replied. "In the first place, farmers can work for each other. They don't all raise the same kind of crops and are therefore not busy at the same time. Besides, ways and means can be provided to use the surplus labor of the cities. Most city workers now do not care for farm labor. But the kind of farm labor I am talking about would be different. It would be pleasant. It would not be laborious. It would be done with machinery. Anybody can run a tractor. And such work would provide a pleasant change from indoor work in cities.

"Do you know, I believe this is the solution of our 'back to the land' problem? Before many people realize it, farming is

going to become a delightful occupation, without a bit of drudgery in it. And this change will come as soon as the old 'hick' farmer is gone, and he will be gone in ten years. I mean by this expression no disrespect to old farmers. I mean only farmers who will not adopt new ideas.

"The farmer of the future is coming from the city. He is the bright, snappy young fellow who is now floundering around in town who will find himself when he comes to the country. He will be quick to accept modern ideas because he left the farm on account of the old ideas. He will apply modern manufacturing methods to farming and he will get results. There is no reason why farming should not be the pleasantest occupation in the world. And it soon will be."

Mr. Ford even has ideas of farmers pooling their land, working together and

dividing the product on the basis of the amount of land put into the pool and the number of workers engaged.

"I also expect to see," he added, "farming corporations in which one may buy shares of stock just as people now buy shares of stock in manufacturing corporations. These men will market their products without middlemen and down will come the cost of living, since there will be no exploitation in connection with food production."

Mr. Ford is not blind, however, to the forces that he is setting in operation. If the nation's farmers are to do their year's farm work in 25 days and compete with city factory workers the rest of the year, it will necessarily follow that the industrial situation in the cities will be worse than ever.

"I can see that," said Mr. Ford; "but

that constitutes no reason why farmers should continue to spend a year doing 25 days' work. That is an enormous waste of human energy. Surely it is not wrong to stop wasting men's labor. If the solution of one problem intensifies another our next business is to solve the problem that is intensified. I lay this down as a fundamental truth—that there is room enough on this earth for us all, and that the mere fact that we have become more skilful in producing the necessities and comforts of life is no reason why anybody should go without such things. When people have to go without because they can not find employment, it is a sure sign that something is wrong. Get the parasites out of the way and there will be no difficulty about finding employment for everybody. It is the men who are trying to live from the labor of others

who are responsible for the condition that the world is in now. Right here in our office we can make enough engineering plans in 30 days to set every idle man in the world at work. Think of the water power in this country and abroad that is going to waste. And the improvement of these power sites is only one thing that needs to be done."

XIX

The Great Ford Farm

WHEN Henry Ford talks about farming he talks about something that he understands. He was born on a farm. He has plowed many a weary mile. He now owns and operates one of the largest farms in the United States.

This farm consists of more than 9,000 acres. It is situated near his experimental laboratory at Dearborn. It includes his father's old homestead of 240 acres. Far back from the road, he has built on this farm a great stone house in which he now lives. Five thousand acres of this land is under a high state of cultivation.

Mr. Ford bought so much land primarily to serve as a proving ground during

the years when he was developing his tractor. Farmers would not let him plow for them, even for nothing. His plowing did not suit them. So he bought a great farm upon which he could plow as he pleased and experiment with his tractor to his heart's content.

Mr. Ford put the farm in charge of an energetic young man who knew nothing about farming. It is Mr. Ford's contention that anybody, in a few days, can learn to farm with machinery. Of course, the chemistry of farming is another matter. One can study a lifetime at that and still have much to learn.

In the summer of 1921 Mr. Ford had 3,000 acres of wheat to harvest. Men were called out of the Ford factory and set to operating a flock of tractors and reapers. In four days the harvesting was done.

On the Ford farm plowing immediately follows the harvesting of a crop. In the fall of 1921 Mr. Ford cut down his wheat acreage to 2,500 acres. The plowing was done in five and one-half days.

All the work on the Ford farm is done in 21 days a year.

There are no farm animals on the place except a few saddle horses. Asked if animals were not necessary to the fertilization of soil, he said they were not.

"Land can usually be kept enriched," he said, "by deep plowing and subsoiling. We have experimented with deep plowing and found that while it does not enrich the land the first year, that it does so after the air and frost have had an opportunity to work. We plowed a 300-acre wheat field 10 inches deep instead of 8 inches, and thereby increased the yield 10 bushels to the acre. We are experi-

menting with plows that will go down 18 to 20 inches. Land needs a good stirring to do its best. If fertilizer is really needed it can be obtained from the air. That's why I want to make nitrates at Muscle Shoals."

When Mr. Ford takes over a factory, the first thing he does is to "clean up." He carries out the same idea on his farm. In the fall, he gets rid of all the weeds. Then in the spring there are no weeds to cultivate out. Once over with a tractor disc and he is ready to plant corn. When the corn is 12 inches high, he cultivates it just once. That is enough. The old practise of cultivating corn when it is high does more harm than good, he says, since it cuts the top roots.

Mr. Ford plants alternate rows of corn and potatoes, 3 feet 8 inches apart. The rows are run north and south to prevent

the corn from shading the potatoes. The cultivation of the potatoes with a tractor also stirs the soil around the corn and makes unnecessary the cultivation of the corn itself.

"When farm work can be done so quickly and so easily with machinery," said Mr. Ford, "why should not people like it? The answer is that they will like it when they realize that the new era of farming has come. The monotony and the isolation of farm life have driven millions to the cities. But farm life need no longer be isolated nor monotonous. Farmers should and can live in villages —not on their farms. In villages they can have the community life that they need. If farmers will but get rid of their horses, cattle and sheep there is no reason why they should live on the land they till. With no animals, there need be no

buildings on a farm except granaries. Any farmer who is doing his farming in the right way can afford an automobile, and with a car, what difference does it make even if his home is 20 miles from his farm? A spin of 20 miles is only a pleasant beginning and a pleasant ending to a day's work."

Mr. Ford loses no opportunity to emphasize the necessity of utilizing any water power that may be found on a farm.

"The smallest creek," he said, "may be large enough to light the house and a larger stream may do the cooking, too. On the River Rouge, a little stream not more than 30 or 40 feet wide that runs through my farm, I have nine dams from which I take between 300 and 400 horsepower. A little of this power is used to light my house and do the cooking, and

the rest is wired over to the laboratory at Dearborn. The dams are not high—only 8 or 10 feet.

"As soon as I can get around to it, I am going to put in a dam to demonstrate that with twenty feet fall I can produce from a rivulet one horsepower. One horsepower, working 24 hours a day, if desired, is worth having. It comes in handy around a farm.

"Of course, an engine must furnish the power for plowing and harvesting. Just now gasoline is being used as fuel, but the fuel of the future is alcohol. The supply of gasoline is limited, but fortunately the supply of alcohol is not; and alcohol is a very much better fuel for an engine than gasoline. Alcohol can be made from almost anything that grows. Enough alcohol can be obtained from an

acre of potatoes to plow an acre of land with a tractor for 100 years."

Ford said he quit farming when he was a boy because it seemed to be too unimportant an occupation for any man to have. There was not enough to farming to make it interesting. He feels the same way now. Farming interests him mightily during the short season when there is reason to practise it—but there is no reason why anybody should work on a farm more than 25 days a year!

"Agriculture," he said, "is destined to occupy a very small part of our time and thoughts. There is no reason why the business of producing what food we need should occupy much of our attention. It is a simple process, and practised as it should be, and soon will be, it will fall in rank to one of our minor occupations. It will be as important as ever in the

sense that it will furnish us our sustenance, but we shall devote to it so little of our time that we shall not pay much attention to it."

Ford is as sure he is right as to what is about to take place on the farm as he was sure he was right when he said he could make a good automobile and sell it at a profit for less than $500—a thing that all the automobile manufacturers in the world said that nobody could do.

The fact that he is a farmer is, of course, enough in itself to give weight to what he says.

But the thing that gives his prophecy real life is that it does not depend for its fulfilment upon the invention of things that do not exist.

The machinery that he would use is here.

The fences that he would tear down can be torn down.

The horses that he would dispense with can be driven away, and the cattle and sheep that he would remove can be sent to the Western ranches upon which he would raise the nation's meat and wool.

All that is necessary to do the nation's farm work in 25 days a year is to get the necessary machinery and tackle the job in the Ford way.

The village industries in which farmers might be employed eleven months in the year do not yet exist, but the fact that they do not exist is not sufficient to prevent farmers from raising as much on their farms in one month as they now raise in twelve months. And there are probably a good many persons in the cities who will consider living in the country as soon as they learn that they

can make a year's living in the country by working less than a month.

Ford does not permit himself to doubt that the transformation of agriculture is at hand. "The Lord is working," he said, "and will clear the land of those who will not go ahead."

What is the building of a few million automobiles or the harnessing of a few rivers in comparison with the revolutionizing of the world's oldest and most important industry?

Future generations may never know that Ford ever built automobiles or was a billionaire. A thousand years hence Ford may be known only as the Father of Modern Agriculture.

XX

Work and Play

ONE day at luncheon Mr. Ford dropped the remark that he believed the time would come when nobody need spend more than 2 per cent. of his time in producing the food, clothing and shelter with which to maintain himself.

"I am not sure," he added, "that we are now spending more than 2 per cent. of our time to produce the necessities of life."

Two per cent. of 24 hours is about 29 minutes, and inasmuch as the men in Mr. Ford's own industries work 480 minutes a day, I asked him what he meant.

"I mean," said he, "that even with our very imperfect industrial organization, a

small fraction of our time is enough in which to produce the bare necessities of life. Our men work eight hours a day for a living because it takes all they can earn in that time to maintain themselves and pay their share of the general wastefulness and inefficiency of the world. Our workingmen do not get full value for the wages they spend. Nobody does. Every time anybody pays more for a thing than it should cost to produce and sell it he is helping to support those who are not producers and also paying his part of the penalty for not organizing the world on a scientific basis. Earning a living will be the smallest part of our troubles once we have learned to do without parasites and without waste. Too many activities are now non-productive. That is partly because of our faulty industrial organization and partly because of parasitism."

Mr. Ford's mind was glowing with the vision of a world running at high speed on roller bearings with water power turning the wheels and not a man doing a thing that a machine could do as well or better. The necessities of life produced in 2 per cent. of our time!

"What shall we do the other 98 per cent. of our time?" I asked.

"We can manufacture other things," he replied. "We want a good many things that are not necessities."

We were off upon deep waters. Broadly speaking, in asking "What shall we do with the other 98 per cent. of our time?" I had asked a master of machinery what effect machinery is destined to have upon the evolution of the human race? That is what the question amounted to. I think Ford did not quite catch the significance of the question when I first asked it. Mas-

ters of machinery, as a class, appear not to have given a thought to the most important thing about machinery which is the effect that it is destined to have upon human life. Edison, who is always thinking and is therefore a long way ahead of his contemporaries, is an exception.

"What will people do when machinery does everything?" Edison paused to ask me one day when he was describing an automatic machine that, with two operatives, did the work of 43 men. He hesitated a moment more, as if the query had started a new line of thought in his mind.

"Manufacturers can then afford to pay any kind of wages," Edison continued, as if answering his own question. "Wages can be very high. A son can be paid enough so that he can support his father and mother after they are 50 without considering their support a burden."

This question, which I rather think was new to Ford, reverberated through our conversations for a number of days.

"There is a limit to people's desire for luxuries," I said to him one day.

"I suppose there is—somewhere," he replied.

"And is it not conceivable that the people will keep on manufacturing goods that they do not want until the earth is cluttered up with manufactured things?"

He replied that it was not.

"Is it not, therefore, to be presumed," I added, "that when all water power is used, industry scientifically organized and parasites eliminated that the time will come when the people will prefer leisure to making of more things that they do not want?"

Ford gave an affirmative answer, but almost negatived it by adding that work

was a good thing. I asked him why work was a good thing?

"Because it keeps people out of mischief and makes them happy," he replied.

"But you and Edison do not get into mischief when you go away to play?"

"No, but we don't stay away very long. We come back and go to work."

"But do you work to create or to keep out of mischief?"

"To create, of course."

"If you and Edison can keep out of mischief without working, is it not conceivable that everybody else can do so if he has an opportunity to learn how to use leisure wisely?"

"Oh, I think so," said Ford.

"Then work, after all, is a means to an end and not the end itself?"

"That's true, I guess."

"In other words, when we can maintain

ourselves in 2 per cent. or 10 per cent. or 20 per cent. of our time, it is probable that the remainder of the 100 per cent. will not be spent at work?"

"Probably not."

On another occasion the question came up as to why people, as a rule, use leisure so poorly, deriving little good from it and sometimes suffering harm.

"I suppose it is because they don't know any better," replied Ford.

"But they know how to work, don't they?" I asked.

"Yes."

"And they have been working hard, since civilization began, to avoid starvation?"

"Of course."

"If they had had as much opportunity to learn how to play as they have had to

learn how to work, don't you think they might have learned how to play?"

"Yes, but what do you mean by 'play'?"

"Social intercourse of any kind," I replied. "Getting acquainted, getting to know each other; running about as you and Edison do. There is no end of useful things that people might do if they had leisure and knew how to employ it usefully."

"I think there is something in that," he replied. "After all, human beings are the only things on earth that are worth while to human beings. Knowing each other and helping each other are really the only things that count. None of us has too many friends, yet there must be many all around us that we should like as well as we do our best friends if we only knew them."

Another day, when we were discussing the subject, Ford said:

"The world we now live in is not the world that will always be. Our aims and our desires will change. We shall not always care for material things as we now care for them. We shall probably work only to satisfy our needs and nobody will care for money, or property, as such. There is really no sense in it. Money is of value only as a means of doing things. We could not run our industries without money, but that is all it is good for."

I asked Ford if he would give me his idea of what the world will be 50 years hence. I happened to ask him on a day when he was a little tired, or preoccupied, or something, as he did not give me much of an answer. With kind of a weary look, he replied:

"I hope by that time workingmen will

have recovered the ability to obtain joy from their work. That is the biggest thing I know of that could happen."

I asked him a number of questions to draw him out further on this point, but he was not communicative. He did say, however, that he believed a man working on a machine, performing the same operation a thousand times a day, could gain some happiness if he would study how to improve the machine.

"I used to enjoy my work," he said, "because I was always thinking how I could do my work better. It is the spirit of good workmanship that makes work a joy. A man should be interested in what he is doing."

Ford had hit upon the most dismal phase of the modern industrial problem—the joylessness of work in an age of machinery owned by corporations.

XXI

Ford on Health and Long Life

ONE day a Detroit man who had known Ford intimately told me that Ford expected to live to be 100 years old. The next time I saw Ford I asked him about it.

"I don't know as I said just that," he replied, "but I don't see why I shouldn't live to be 100. It will be my fault if I don't."

Here was a new glimpse of Ford. The master of materials had moved on to the mastery of his own life—up to 100.

"Why shouldn't I live to be 100?" he continued. "Cornaro lived to be 100. Did you ever read Cornaro?"

I replied that I was familiar with Cornaro's writings and Ford went on:

"Here was a Venetian nobleman, born in the fifteenth century, who at the age of 35 was a wreck. By the trickery of others he had been robbed of the advantages of his position as a nobleman, and through chagrin and disappointment he became dissipated. He ate and drank heavily, and finally, the doctors told him that his only chance for life lay in leading a temperate life.

"All the world knows what happened. In a year he was well. At the age of 83 he wrote an article on 'The Temperate Life.' At the age of 86, he wrote another, at 91 another, and at 95 still another. He lived to be more than 100 years old. If Cornaro could do that, why can't anybody? Cornaro had a poor constitution, which he abused. I have never dissipated."

Cornaro's theory was that each person

should experiment until he discovered which foods disagreed with him and then confine himself to moderate amounts of the foods that experience had taught him he could eat without discomfort. While Ford was speaking, my mind went back to a morning, earlier in the winter, when Ford had said to me:

"I am not feeling quite right this morning. I ate some chicken last night for dinner. Chicken is fit only for hawks!"

Ford does not often eat things that he knows disagree with him. He has the true Cornaro idea about moderation and has combined with it the no-breakfast plan. He appears to eat when he is hungry rather than because the clock is pointing to a certain hour. Sometimes he eats breakfast at 1 o'clock in the afternoon; at other times, he will leave the office, at 10 o'clock in the morning and have break-

fast in the little dining-room that he maintains near the office for himself and a few of the office force. A waiter in Ford's private car once told me that at 11 o'clock the night before, Ford was going through the ice-box to see what he could find. Ford's only rule is to eat when he is hungry, no matter what the hour may be, to eat only those things that experience has taught him agree with him—and to eat sparingly.

"Are you a fresh air fan?" I asked.

"No," he replied. "I don't bother about the air."

"You sleep with some of your windows open, of course?"

"No, except in warm weather. In winter I keep them all closed. I have seven windows in my bedroom and I get air enough around them."

Ford is a great walker when he wants

to walk, but is not methodical about it. Sometimes he will not walk for days.

"I walked five miles yesterday," he said to me one Monday morning in mid-winter.

I was happy to be able to say that I had walked 11 miles the day before.

"I skated from 7 until 9 last night," he added.

The competition ended there. I could reply only that I had not skated for 30 years.

"I am very fond of skating," Ford continued, "and skate a good deal—mostly at night."

A billionaire on ice in his fifty-ninth year, threading his way in the dark along the little River Rouge that runs through his estate. Truly, there is but one Ford and one America.

Ford is thin and slim and trim; also light; admirably built for skating; not so

well built, perhaps, to lose weight in the process of growing old.

"You will look like Rockefeller," I said, "if you live to be 100."

"What do you mean?" he asked.

"Oh, you will be thinner than you are now, and your face will be lined with deep seams," I replied.

"I don't see why," he said. "It is easy enough to regulate one's weight by eating. I now weight 147 pounds. That is about three pounds underweight for my height and age. I could make up these three pounds easily enough if I wanted to, but the little that I am underweight is not worth bothering about."

A few weeks later, I was talking to the vice-president of one of the great life insurance companies and the conversation having turned to Ford, I happened to

mention that he was three pounds underweight.

"That is a very good thing," he said, "for a man of Mr. Ford's age. The men who are a little under weight as they approach 60 have a much better chance for life than those who are overweight.

Ford may or may not live to be 100 years old, but he is the kind of a man who has a better chance to do so than most persons. The fact that he is careful as to what and how much he eats is, perhaps, of first importance. Next comes the fact that he is moving through the world with the minimum of friction. He never worries and he never storms. If, in the course of his business, he has to overturn a situation, he overturns it without increasing his blood pressure. Everything that he encounters is in the day's work, and when night comes he forgets about it. When he

enters his home at the close of the day, Mrs. Ford frequently greets him with the question: "Well, Henry, what kind of a day did you have to-day?" Ford's invariable reply is: "The best day I ever had in my life." Ford is greatly given to the use of superlatives. He once told me that the miners who worked in his West Virginia mines were the "best people in the world." He had just been to visit them for the first time, had heard their tearful tales, and felt sorry for them. A few weeks later, when we were at Muscle Shoals, he told me that the people who lived in that vicinity were "the best people in the world." With Ford "best" means mostly his own state of mind at the moment. Either he is happy or his sympathies have been touched or his imagination has been aroused. When his mind is running to organization, he often says

of this earth that it is " the best piece of raw material in the universe."

Ford uses neither tobacco nor alcohol. Edison's "toddy" is tea with lots of sugar in it. "This is my drink," said Edison to me one day as he opened a thermos bottle on his desk and poured a cup of tea. "Sugar is mostly carbon, is absorbed quickly and turns into energy." Ford has no "toddy"—no stimulant. I never heard him say that he was tired. But he is only in his fifty-ninth year, and Edison is in his seventy-sixth.

"If I were to put a cigaret between my lips," said Ford, "I could taste it the next day. I have tried it. I hate tobacco."

Ford dislikes tobacco so much that nobody in his offices, except visitors, is permitted to smoke.

The trait that will perhaps do most to carry Ford toward the century mark is his

strong mixture of optimism, faith and good nature. Nothing, apparently, can depress him. I once asked him how he would feel if he were to lose his fortune. The question brought him up standing as if I had stuck a pin into him. His voice actually rang out through the room.

"Why, it wouldn't discourage me a bit to go broke," he replied. "In some ways it would be fun to go out in the world again and struggle as I once did. I wouldn't mind it a bit, I wouldn't mind it a bit," he continued. "I would find something to do, very quickly."

The question seemed to arouse him more than any other question I had ever asked him—and I had asked him thousands.

"The trouble with most people," Ford continued, "is that they are filled with fear, which means that they lack faith in themselves, and in the world. Suppose I

were to go broke? What of it? Is it likely that I should be compelled to go hungry or without shelter? When I was a young man I always earned enough to live on; I am sure I could find something to do that would be worth doing. Of course, it is different if a man can not get a job. If the world were properly organized and the parasites were cut off, there would always be work for everybody. That is the way it should be and the way it yet will be. But even as things are, worrying does no good. It does only harm. It decreases the power of the one who worries.

"I do not know of anything that would help the world more than to get rid of fear. It is the curse of mankind. We fear a million things that never happen to us to one that does. I have found that it pays to have faith—to believe that if one

works hard and does his best that things will come out favorably for him. We may not always get all we want and I believe it is a good thing for us that we don't. We often want a lot of things that would not be good for us if we had them. If we get what we need, that's enough."

Ford has the zest for life that is believed to be conducive to longevity, restrained by a temperament that prevents him from wearing himself out. Mr. Roosevelt had a great zest for life, but when he was growing old he plunged into the jungle and contracted a fever, from the effects of which he never recovered. To use an automobile phrase, Ford never "speeds."

XXII

Ford's Friendships

THERE is a type of man who never really begins to enjoy a vacation until he has returned and gone to work. In investigating the matter of Ford's friendships, I discovered that Ford and Edison are both of this type. It is not, of course, that they are unhappy while they are away, but as busy men they find difficulty in turning the sharp corner from work to play. It is only when they are back at work that their memories begin to glow.

When Edison returned from an extended camping trip through New England with Ford and John Burroughs, Edison was asked by a man in his office how he had enjoyed himself.

"The last part of the trip was not much good," he replied with a wry face. "It seemed as if we could not camp anywhere that there was not a factory chimney in sight."

"How did you put in your time?"

Here came into play the prankish spirit in Edison that will not bow to years.

"Oh, Ford taught history to me," he said, "and I taught etheric force to him."

"But the newspapers say that Ford knows nothing about history."

"I don't know anything about etheric force, either," said Edison, exploding with laughter.

I saw Ford a few days after he returned from a vacation in Florida with Edison in the spring of 1922, and asked him how he had enjoyed himself.

"Oh, not so much," he replied. "What is there to do on such a trip? One can

fish a little, of course, but nobody wants to fish very long."

A few days later, when Ford's memory had begun to glow, he started telling wonderful stories about evenings spent with Edison out in the open, under the stars, in the blackness of night, during which their speculations went out beyond the farthest star and their conversation ranged from the known to the unknown.

"The stars are so bright in Florida," said Ford, "we saw many that can not be seen here in Dearborn."

I asked Edison to tell me about the play-days he had spent with Ford and Burroughs, and it was plain that the request brought back to him pleasant recollections.

"The first time I went to Florida with Ford," he said, "I told stories to him all the way from Orange to Fort Meyers. Ford laughed and laughed, but did not

come back with a single story. He did not have a line of stories at that time. But the next time we went to Florida he told as many stories as I did. He had stocked up.

"We used to have a lot of fun with John Burroughs. Burroughs was more sedate than Ford or myself, and we used to 'josh' him a good deal about his ministerial soberness. But we got him going at last. I told a story that made Burroughs laugh so hard that he fell off his camp chair. For days afterward, Burroughs would occasionally burst out laughing, and when we asked him what he was laughing about, he would reply, 'That story.'"

But if Burroughs was sometimes sedate, Edison and Ford were not. Ford, according to Edison, was always the camp "cut-up"—climbing and chopping down trees, running, jumping, shouting and

laughing. "He is just like a boy," said Edison. Nor were their experiences confined to camp. Things were always happening on the road as their caravan was proceeding from place to place. One evening at dusk they halted in a little town where a Salvation Army street meeting was taking place. Edison alighted from his automobile, politely took from a young woman the tambourine in which she was gathering a collection and took up the collection himself. On another occasion, they passed along a road in New England where a farmer's family were gathered about the smoking ruins of their house. This spectacle instantly aroused Ford. He alighted from his machine, questioned the family, and listened to full particulars of what, to these poor people, was a great tragedy. Ford pressed upon the family all the money he had and Edison, too,

emptied his pockets. Still, Ford says he does not believe in charity—he calls it something else when he runs across poor people and helps them. In wandering around in some woods near Dearborn, late one fall, he found an old hermit living in a hut without a stove. Ford sent him a stove.

The death of John Burroughs was a blow both to Ford and to Edison. Ford and Burroughs were particularly attached to each other because of their love for birds. Ford has about 2,000 bird houses on his farm, but is building more at the rate of 200 or 300 a year.

The first summer after the death of Burroughs, President Harding joined Ford and Edison on their vacation. Edison had never met the president until he came into camp. In the course of the first half hour, Harding offered Edison a cigar. Edison

tapped on his cheek to indicate that he was chewing tobacco. Harding reached into a hip pocket and handed him a plug of tobacco. Both Ford and Edison liked Harding, but complained of the crowds that gathered around their camp.

If I were to summarize my impressions of Ford's social nature, I should say that while he is not what the world calls a "good mixer," he has a considerable capacity for friendship. By nature he is conspicuously friendly. One feels that about him instantly. He has good will for people, merely as fellow human beings. I do not recall that I ever met anybody who knew Ford who did not like him. Mayor James Couzens, who was with Ford so many years, told me that the hardest blow that had ever come to him, barring the death of his son, was when he felt compelled to resign from the Ford Motor

Company and thus break his close business relationship with Ford. The men and women in Ford's office who know him all like him. They may not like certain things about the organization, but they like Ford himself.

Ford is cordial and friendly to everybody, but I doubt if he makes many new friendships that mean much to him. Of course, he has reached the time of life when one's capacity for making friends is somewhat decreased. But the mere fact that Ford is so enormously wealthy is in itself a barrier. Ford's friends feel it and, in a different way, he feels it. Many keep away from Ford for fear he will think they want something. Others keep away from him because they can not reach him without passing so many guards. A prominent Detroit man who has known Ford for years told me that he drove out

to Dearborn one afternoon, in response to Ford's invitation a few weeks before to "Come and see me," only to be held up by a guard at the railroad crossing. He answered the guard's question as to whom he wished to see, but when the guard asked what he wanted to see Mr. Ford about, the visitor turned around and went back to Detroit in disgust. Such things hurt some persons, but they can not well be helped. If Ford were not "fenced in" he would never have a moment to himself.

But Ford sticks to his old friends. When he is in a certain mood, he will go out to the Highland Park plant and pick up an old employee who used to drive a racing car for him many years ago. Ford will take this workingman in beside him in a coupé and they will drive far into the country, with Ford at the wheel and

neither of them saying a word. Ford simply likes the man and it is enough to be with him.

"I know everybody in and around Dearborn," said Ford to me one day. "I see school mates of mine every little while."

Ford really has a fine nature. It is not flawless, but it is fine. As Alexander Dow, Ford's old "boss," once said to me: "Henry always did get 'set' once in a while and does yet." When Ford gets "set" he is set and that is all there is to it. He may be right or he may be wrong, but he is "set." But he always means to do right and usually does it. He is the kind of a man that anyone might be glad to have as a friend.

XXIII

The New Henry Ford

NO man stands still. He shrinks or he grows. If he grows, he takes on new interests. As new interests come, they crowd older thoughts into the back of his mind. It is not that the man changes in the sense that he throws overboard anything that is good, but he takes on more cargo.

Henry Ford has been taking on more cargo. He bears but a faint resemblance to the man who, in 1914, startled the world with $5 a day wages for floor-sweepers and $10,000,000 profit-sharing plans.

Ford, in 1914, seemed like a kind man who, having worked long and hard, had suddenly come into the possession of great riches and wanted to make as happy as

possible everybody who had helped him. After a long struggle, he had won out. The fates had been kind to him, so why should he not be more than kind to those who had helped to make what he had? In some such manner he appeared to reason. At any rate, his sympathies ran warm and strong, and his conversation was saturated with the spirit of brotherly love.

As Ford has taken on more cargo, all of this has been crowded into the back of his mind. One may spend a winter in his office, as I did, and hear little or nothing of the mellow note that was sounded so clearly in 1914. It is not that Ford has grown hard. One has but to look at his face to know that. But he has grown busy. His mind is no longer solely concerned with the manufacture of automobiles. It is concerned with the infinitely greater problem of organizing the industrial

world. Ford's brain is in the United States, but his thoughts roam throughout the universe. Wherever water power goes to waste, there Ford's indignation also goes. It does not matter whether the idling water be in the Tennessee River or in the Volga—the Amazon or the Yangtse. Waste is waste, wherever it is, and Ford knows that wherever there is poverty it is only because something is going wrong. Either natural resources are being wasted, improperly used or their products improperly distributed.

Cecil Rhodes, in his last hours, said something about "So much to do and so little time in which to do it." I believe that it is some such reflection that accounts for Ford's tireless activity. He *is* tireless. He has already done enough to earn a rest, and has money enough—and to spare—to retire, but no man who works for him

strikes the pace that he does. He begins early in the morning, but not even his secretary knows where he will begin. He may appear first at the experimental shops at Dearborn, which, of late years, he has made his headquarters. Or he may begin the day at the Highland Park plant, almost 20 miles from Dearborn. Or he may go to the tractor plant at the Rouge. He never has a program that anybody else knows, and flits about from place to place as he pleases. He dislikes to make appointments with anybody and makes but few. He wants always to be free.

If Ford begins the day at the Dearborn shops, the first glimpse of him that anybody in the office gets is when a car rapidly drives up and stops in front of the machine shop, through which Ford usually enters, instead of going through the office. He usually rides in a coupé, with a chauf-

feur, tho occasionally he drives his own car. Once in the building, he goes from office to office, sitting a little while in each as might a visitor. He is likely to remain the longest in the draughting-room, where engineers, under his direction, are planning a locomotive, a car or some similar thing. He may remain in the draughting-room half an hour, sitting in an old wooden chair and discussing with an engineer a drawing that is being placed on one of the big boards. After he has made his morning visits to two or three offices, he will suddenly pull out his watch, note the time, quickly put on his hat and coat and enter his car, to be whirled away at 50 miles an hour to the Highland Park plant. He may be back in an hour or he may not be back in three days. Or he may return at five in the afternoon, apparently with all the time in the world at his disposal. Upon

such occasions he will talk at length with anyone in whose room he happens to be sitting. Ford in the morning is all movement and energy. At the close of the day, he might easily be mistaken for a man who had retired from business and, without a thing weighing on his mind, had nothing to do but talk with his friends.

"We are living in a new era," is a remark that Ford makes again and again. This remark is really the keynote of the new Ford. I believe the manufacture of automobiles now means next to nothing to him—it is a matter of routine that, with a certain amount of attention, will go along. What really engrosses his attention is the problem of putting order and efficiency into a disorderly, inefficient world. The thing that is at the front of his mind at the moment is the saving of the enormous amount of water power that is going

to waste in the United States. But immediately back of this is the problem of distribution. He is actually horrified at the amount of waste and parasitical profit that attend both production and distribution. Ford hates waste as he hates income that is not earned.

Ford, having progressed from automobiles to the universe, is like a giant feeling his way through the fog in search of a big load to pull. Through the mist he saw Muscle Shoals. The pity is that society is so organized that it is difficult for a giant to obtain permission to work. The people are willing, but selfish private interests interpose obstacles that consume months and years. Not a day of Ford's time should be wasted. His ability to serve the world by helping to organize it is so great that he should be given opportunities equal to his powers.

The new Ford is a deep, clear thinker. Gentlemen who are more ignorant and envious than wise call him ignorant, but if one has a background of knowledge and understanding it is a delight to watch Ford's mind at work. Ford might have written large sections of a recent book entitled "The Mind in the Making," by Dr. James Harvey Robinson, which H. G. Wells says is one of the greatest works in the English language. Ford has the same contempt for precedent; the same belief that the greatest obstacle to our progress is our "past," to which we look for guidance when we should be looking ahead; and the same belief that there can be little doing without some daring.

Ford says, "History is bunk," meaning thereby that the past does not interest him because he believes there is so much more in the present and the future. The

author of "The Mind in the Making" expands this truth into pages, fortifies it with logic and polishes it until it becomes a literary jewel. But in all of the pages that Dr. Robinson devotes to this subject, he goes no farther than Ford's own ideas. Ford never doubts that civilization has just begun, that we have learned but a fraction of what there is to know, and that much of what has come down to us from the past as wisdom is error.

So this is what has become of the mellow man of 1914; he is mellow now only at sundown. Ford has grown up. During working hours he is not so lovable as he used to be, but he is more useful. His mind is now overcast with too many great projects to permit his kindly attributes an opportunity to shine through, except in flashes.

"The best way to be kind to people,"

said Ford, "is to help them to help themselves. That is what I am trying to do. And I am trying to set a good example in the world. I am trying to do things that will stick because they are too good to be brushed away. In March, 1922, for instance, we inaugurated the five-day week at Highland Park. Some people will say that I did this only to help myself—that by letting our thousands of men rest two days a week they will work harder and produce more the rest of the week. That is true. In this sense, we did do this for our own benefit. But is that all there is to the story? By no means. There is a great deal more to it than that. We have taken the first step toward cutting a week's work to five days throughout the world. Isn't that of vastly more social significance than the fact that the plan is also better for us? Don't think that the five-day week

is going to stop at Highland Park. That is where it began, but it will not stop until it circles the globe. Workingmen read the papers. They know what is going on everywhere. They are talking and thinking about what we have done. They can't be told in one breath that we did this to make more money, and in the next breath that their employers could not do it without losing money. They are going to keep on thinking until they compel their employers to think. Then everybody will have a five-day week.

"Life can not be what it should be and what it will be until birth means for most people something more than a hard struggle until death. Work is good for us and we should work. But we should also have time for home and for recreation.

"It is not necessary to work all the time to produce the things we want. A hundred

years ago large numbers of people in England worked 16 hours a day, seven days a week, and there are still some in the United States who never have a day of rest. It is not necessary to work even six days a week. What good is machinery if it does nothing to lighten our burdens?

"One reason the world has moved forward so slowly is because the people have been deadened with too much work. Thinking is the only thing that gets us ahead. Of course, if a man's work is congenial he can think at his work, but most of them don't. Perhaps most of them can't. If so, the greater is the reason for the five-day week. The world was made for all of us instead of for some of us, and things must be arranged to fit the average human being."

XXIV

Ford's Public Activities

TO begin a business career at 40 with practically nothing, and in the next 19 years accumulate the world's greatest fortune would seem to be a task great enough to employ all of anyone's time. Ford has such an enormous capacity for industrial generalship, however, that it has not taken all of his time to determine what orders to give to his subordinates. He never gives an order, by the way—he expresses only "wishes," but to the lieutenants who hear them they are received as orders. In any event, Mr. Ford has had both the time and the inclination to consider public affairs.

The sending to Europe during the Great

War of the famous "peace ship" constituted his first public activity. Nothing ever caused a man to be more widely ridiculed, yet I suspect that the sending of that ship did more than anything else he has ever done to cause the common people of this country and the world to trust him. It seemed like a magnificent gesture of childish faith—faith that in some way or another a great horror might be ended by touching the heart of the world with a spectacular demonstration of a neighbor's friendship and good will. Perhaps nobody believed the demonstration would accomplish its purpose; probably the common people of America and of the world were as skeptical as any others. But the day that ship sailed, the common people of the world gave Ford their hearts—and have never recalled them. From that day to this, malignant criticism of Ford has

been, so far as the common people are concerned, like a tallow arrow fired at a stone wall.

Ford sent the ship because some well-meaning women asked him to do so. They had faith but no money. Ford had more money, but not so much faith. So much was at stake that he was willing to take a chance. The whole trip cost him considerably less than a million dollars.

"I thought," said Ford, "that if what I was asked to do should result only in shortening the war by a single day that it would be worth a good deal more than it would cost. The war was killing 10,000 men a day.

"But I lost interest in the expedition before we were half-way across the ocean. I was told things by a man on the ship that so fitted in with things I already knew that I realized we were on a hopeless journey.

I was convinced that the international banking group caused the war and that no others had power to end it. I believe this to-day more firmly than ever.

From that day to this the name of Ford has buzzed around every great political convention. No party leader has been immune from fear, because every party leader realizes that Ford sentiment is likely to break out anywhere. The Republicans of Michigan, in a state primary held in 1920, directed that the Michigan delegation to the next Republican Convention cast the State's vote for Ford for President. Two years before, the Democrats of Michigan had voted for him as a candidate for the Democratic nomination for United States Senator. The unusual spectacle was presented that year of one man running on two tickets for nomination for the same office. On the Republican ticket, Ford re-

ceived 71,800 votes as a candidate for the senatorial nomination, to 114,963 for Truman H. Newberry. On the Democratic ticket, Ford received 30,791 votes to 8,414 cast for James W. Helme.

The deep faith that the common people have in Ford was brought out sharply in the Ford-Newberry campaign for United States Senator. Everybody knows how rock-ribbed and overwhelming is Michigan's Republicanism. Yet on the face of the returns, Ford fell short of Newberry only about 5,000 votes.

The politicians do not know to which party Ford belongs. I doubt if Ford knows, either. I gather from what he has said to me at different times that he believes both of the old parties are rotten—filled with little men who, in order to remain in office are willing to do the bidding of the big interests. Ford's idea is

that government should exist only to bring the greatest good to the greatest number, and that to the extent that it falls short of this it is either stupid or criminal. He believes the banking interests manipulate the Government to serve themselves at the expense of the public. That is what brought him into collision with the gold standard. He wanted the Government to complete the Muscle Shoals water power properties and lease them to him. Objection was made that the Government could not afford to spend the money. Ford said the Government could issue currency, secured by the value of the properties, and complete the work without the payment of a cent of interest. Edison agreed with him, heartily and thoroughly—and every banking interest in the country laughed at them both.

It will be a long fight—this fight against the gold standard—but it will be kept up

at least as long as Ford and Edison live. Edison sent out to a group of the recognized economists of America a questionnaire on the gold question—a questionnaire that to one of the recipients certainly and to all of them probably, seemed very naïve and childish in its simplicity. It was full of catch questions. These catch-questions were so worded that, to dodge one, the dodger was certain to impale himself on another. The fact is that the great economists of America never missed a hook. They were caught on every question. Their reputations are secure because Edison, as a matter of honor, will not reveal their names, but the facts are as here stated and Edison himself gave them to me.

Ford is thoroughly convinced that the gold standard is one of the devices by means of which the people are impover-

ished and the development of industry retarded. He often says that if the world were not shackled by laws made to help the rich at the expense of the poor he could, in 30 days, draw enough engineering plans in his own office to put the whole world at work.

While the gold question came up in connection with the Muscle Shoals matter, the entire Muscle Shoals project is, to Ford, a public activity in which he is engaged. I do not doubt him in the least when he says that his only interest in Muscle Shoals is to make a great demonstration in the use of water power. He would like so to touch the imagination of the people of the United States that they would see, as in his mind he does, a great country operated by water power that is now going to waste.

Ford's mind, in a way, is like a pair of

ice-tongs, the clutch of which is produced by and proportioned to the weight of the ice. The harder he is fought the more determined he becomes. In the early days of the Muscle Shoals contest he once told me that if he did not get a chance at Muscle Shoals he would strike for the Mississippi, which, between St. Louis and New Orleans, has a fall of 400 feet. In the spring of 1922, when the Muscle Shoals question had become so involved by the politicians that it seemed as if it would be held up indefinitely, I again asked Ford where he would try next if he should fail to get a chance at Muscle Shoals.

"I am going to get a chance at Muscle Shoals," he calmly replied.

"But if you should not get a chance," I persisted.

"That is a possibility that I refuse to consider," he replied. "Before I get

through, I am going to get into Muscle Shoals."

Ford, if he were to go into politics on a big scale, would make a strange figure. It is the way of politicians to become heated over their campaigns and, for a while at least, to hate their opponents. To his dying day, Champ Clark never forgave Bryan for taking the Democratic nomination away from him in Baltimore in 1912. Roosevelt and Taft fell out. There is no end of such instances.

I happened to mention to Ford the name of Newberry one day when the Newberry investigation was at its height in the Senate.

"Senator Newberry is a good man," said Ford in a very matter-of-fact way. "He comes of a very good family. His sister Helen is a fine woman."

At another time, Ford said that he

"would not give five cents to be a United States Senator." He said he made the fight against Newberry only because Wilson asked him to do so.

Whether Ford should ever go into politics, his public activities will end only with his life. Whatever concerns the welfare of others interests him. He believes we have only just started to make this world a fit place in which to live and wants to do everything he can to help the work along.

XXV

The New Ford Interests

SO long as Mr. Ford lives it will not be possible to tell the complete story of his business life, because he is adding to it all the while; and he once said to me: "I shall never retire. I shall be in business as long as I live." A writer can, at any given time, tell the story only up to the hour of going to press." It therefore seems fitting, in rounding out the chronicle of Ford's business career up to the summer of 1922 briefly to survey the concerns that in the great manufacturer's office are known as "The Ford Interests."

I am tempted to begin with the Henry Ford Hospital in Detroit, because Mr. Ford once told me an interesting incident

in connection with it. I asked him how he came to establish it.

"Mrs. Ford had been to a hospital for a very minor operation," he replied, "and she was charged about 7 cents less than $3,000. She was given a big bill because it was known that she could afford to pay it. But I never believed it right for doctors to regulate the size of their bills by the wealth of their patients. So I decided to build a hospital in which everybody would be charged what the services rendered to him cost and nobody would be charged more."

This story is an interesting illustration of the manner in which the minds of men are moved. Mr. Ford, of course, knows why he built the hospital, but everybody in Detroit has an entirely different understanding of the matter. So far as the people of Detroit know, what happened was

this: A campaign was begun to raise money for a new hospital. Subscription lists were started. Mr. Ford made a generous subscription—half a million, I think. But the rest of the money came slowly. After the campaign had dragged a while, Mr. Ford told those who were in charge of it that if they would return the money that had been paid in on the enterprise and cancel the subscriptions, he would build the hospital himself. That was done. And the public understanding, up to this point, is correct. What the Detroit public did not know was what force moved Ford to take the whole burden upon himself. Ford knew, and when I asked him why he built the hospital, he told me the reason that was uppermost in his mind—the overcharging of Mrs. Ford merely because she was the wife of a rich man. Ford never mentioned to me the campaign for funds

that failed, tho it is probable that the failure of this campaign, coming when it did, helped to transform his indignation into action.

The hospital that Mr. Ford built at a cost of $5,000,000 is said to be the best equipped of any hospital in the world—and the best planned. It is not the largest institution of its kind—it has but 500 beds—but it has the best of everything that money could buy for it. Before laying a stone, Mr. Ford sent men to investigate and report upon the great hospitals of the world, and from the information gained an effort was made to combine the best features of each while eliminating the weaknesses of all.

In some respects, the hospital is conducted like a factory and in other respects like a hotel. The daily newspapers are brought regularly to all patients well

enough to read, and each patient has a room to himself, as he might if at a hotel. But the hospital employees work eight-hour shifts, and costs are reckoned as carefully as they would be if automobiles were being manufactured. Whoever goes into the Henry Ford Hospital as a patient must leave his own physician outside, except as he may enter to confer, and be attended only by the physicians of the Ford Hospital staff. All decisions are made by the Ford physicians. No vivid imagination is necessary to understand why the Ford hospital is not exactly popular among all other physicians.

When one goes to the Ford hospital for an examination, he may be told to go home—that there is not enough the matter with him to justify him in leaving his home in which adequate treatment may be given. No effort is made to drum up

trade. If, on the other hand, the visitor needs hospital treatment, he is put to bed, given the best of care, discharged at the earliest moment that it is safe for him to leave, and charged the cost of the service rendered to him. No effort is made to make a profit out of the hospital, but everybody who can must pay. Of course, no questions are asked about payment when emergency cases are brought in. They are attended to at once.

I was told in Detroit that the Ford Hospital charges are remarkably low. I was also told that the Ford habit of telling people to go home when they visited the hospital in the mistaken belief that they should go in and go to bed was having a blighting effect upon the business of other hospitals. I do not know whether this is true or not.

A Ford interest that is replete with in-

teresting possibilities is the Detroit, Toledo & Ironton Railroad. Mr. Ford paid the stockholders more than the market price for it and picked up almost enough junk along the right of way to pay for it. He told me this. Others told me that for weeks after Ford bought the road he made frequent inspection trips over it, often alighting from the trains and walking miles—returning with pockets full of spikes. Ford always believes in getting at the "cutting edge" of things—in the case of a railroad, the engineers, firemen, roundhouse men, and so on. Men who sit in offices he visits last, believing that they do not know much about what is going on.

In discussing the D., T. & I., Ford once remarked that he would like to own a transcontinental railroad. I asked him if

he expected ever to own one and he replied that he did not.

The shrewdness of Ford in visualizing an industrial possibility is illustrated by his purchase of the D., T. & I. He had coal mines in West Virginia and a great many furnaces around Detroit in which coal was burned. But he had something more. He had factories in Michigan that were turning out automobiles and tractors for shipment all over the country—one might almost say for shipment to all of the world. The D., T. & I. crosses every great American transcontinental railroad, and by buying this road, Ford in effect extended his shipping platforms from Detroit to each of these roads, in addition to becoming the transporter of his own coal. Ford naturally moves his own products over his own road at high speed, with the result that the time required to convert

raw materials into automobiles and get them to dealers has been reduced from 22 to 14 days. This has released $28,000,000 which was formerly tied up in goods in transit.

Mr. Ford expects to bring about radical changes in railway equipment and operation. During the winter that I was in his office, he and his engineers were working on a combination gasoline and steam locomotive which Ford believed would haul a ton of freight a mile at a cost of a quarter of a cent. With a steam locomotive of the present type the cost is one cent.

"The weight of locomotives should be reduced one-half," said Mr. Ford, to me, "and the weight of freight cars should be reduced by two-thirds. There is no use of hauling so much dead weight around the country in order to haul some freight.

Car weights can be reduced two-thirds without decreasing either their capacity or their strength, simply by making the cars of better steel."

Mr. Ford owns the Banner Fork Coal Corporation, with 2,909 acres of coal lands in West Virginia and the Nuttalburg Smokeless Fuel Company, with 4,160 acres. He operates these mines, and shortly after he bought them, crawled through some of them in places where he had literally to crawl. I was told by others that he was somewhat horrified to find what coal-mining really means to miners. I know that soon after he bought these mines he had quite a party of miners brought up on the D., T. & I. to his office in Dearborn. Ford sat down in a room with them, and was melted almost to tears by the answer that he received to his first question.

"What do you want most?" he asked.

"Schools for our children," they said.

Ford had a school building going up as rapidly as workmen could put it together, and he erected and furnished another building—sort of a social hall—in which miners and their families might assemble evenings, Sundays and holidays.

"No coal should be brought up out of the ground," said Ford to me. "It is the wrong way to do. The proper way is to burn it under ground, leave the coke where it is and extract the things we want from the smoke. Coal smoke contains 205 chemical ingredients. We burn about 1,700 tons of coal a day at the tractor plant at the Rouge. We take out of the smoke from this coal five of its chemical ingredients—benzol, ammonia, tar and two other things that I can not recall just at the moment. From each ton of coal

we get about two and a half gallons of benzol which is worth enough to pay the freight on the coal from West Virginia to Detroit.

"We are experimenting all the while to find a way to burn the coal underground, draw off the gas, extract what we want from the smoke and end coal mining, so far as we are concerned. I have been told that there is a coal mine in Maryland that has been burning from a period preceding the Civil War. If that is so, I should like to see the mine. I believe there must be a way to burn coal underground."

The Michigan Iron, Land & Lumber Co., which has in the upper peninsula of Michigan 300,000 acres of iron and timber lands, is another Ford interest. There, in seven feet of snow in winter, Ford conducts lumbering operations in a new way. The lumberjack's shack has always here-

tofore, been a dreadful thing, which accounts for some of the industrial trouble there has been in lumbering camps. Ford's workers live in electrically lighted cottages which contain bathtubs and means of heating water. The lumber produced is used to make automobile bodies.

The Highland Park plant in which Ford automobiles are made is known throughout the world. It is situated on 199 acres of land, 90 acres of which are under cover.

The tractor plant at the Rouge is one of the most colossal of the Ford interests, the cost of erecting it having been $40,000,000. There is a smaller tractor plant at Hamilton, Ohio, which is also a Ford property.

A Ford factory in which certain automobile parts are made is at Green Island, near Troy, N. Y.

Throughout the United States there are

35 Ford branches in many of which automobiles are assembled, the parts having been made in and shipped from Highland Park.

In South America are three Ford branches in which machines are assembled —in Buenos Aires, in Sao Paulo and in Montevideo.

In Bordeaux, Copenhagen and Cadiz are assembling stations. In Manchester, England, is a factory. In Cork, Ireland, another.

The Ford Motor Company of Belgium —another Ford interest—was organized late in the winter of 1922. It will operate a plant in Antwerp.

The Lincoln Motor Company of Detroit is the latest Ford interest, "at the time of going to press." Mr. Ford bought it at receiver's sale, paid $8,000,000 for it and says he intends to limit production to 50 cars a day.

The average number of employees in the foregoing industries in 1921 (excluding the Lincoln Motor Company which Mr. Ford did not buy until 1922), was 54,400. A complete statement with regard to the number of employees in the various Ford industries was furnished to me by direction of Mr. Ford. The average for the year at the Highland Park plant was 31,745. The number fluctuated throughout the year from 4,996 in January when the plant was shut down to 40,445 in May when production reached its peak for the year.

The average number employed at the Rouge tractor plant in 1921 was 6,592. The 35 American branches and assembling stations averaged 10,534 employees. The average for the United States was 51,294. The average abroad was 3,106.

XXVI

A "Close-Up" of Ford

MR. FORD'S face is always an interesting study. In it two personalities are plainly reflected. One is diffident, almost to the point of bashfulness, yet very friendly. I can see him now walking into the office where he usually found me when I was preparing this book. He had a way of entering that seemed almost noiseless and instantaneous—I looked up and there he was. He was always smiling as he approached and his eyes were looking to the side and toward the floor.

Ford's eyes are light blue. He smiles mostly with his mouth, tho his eyes sparkle a good deal, and when he is "registering amiability," he has about as friendly a smile as one could wish to see. As he came

forward with this smile, his eyes directed toward the floor and his hand extended in greeting, I was always reminded of the good-natured schoolboy called to the front of the class-room to shake hands with a visitor and just a trifle embarrassed about it.

Diffidence shines through Ford's character in a great many places—diffidence that he himself tries to disguise as something else, and which is generally understood to be something else. When he was a boy he was probably bashful, and while he has overcome much of his diffidence, he has not overcome all of it, and doubtless never will get rid of it all.

I always noticed that Ford wore a different suit of clothes each day—one day a blue serge, the next day a mixed suit with the coat belted across the back in youthful style. He is the sort of a man

who wears his clothes well. Whatever he has always looks good upon him.

It is the boyish, smiling, youthful Ford that enters the office. In ten seconds, and for no apparent reason, the smile may flit from his face and you behold a man who, from his eyes up, seems as old as the pyramids. Many little wrinkles dart out sidewise from his eyes. The skin is stretched rather tightly over his brow, and on each temple is a little vein resembling a blue corkscrew.

The upper part of Ford's face is distinctly feminine in type. His eyes, too, at such times, are feminine. I fancy that he has his mother's eyes. His head, from the eyes up, has the nobility and the poise that one associates with a noble woman; a woman who has suffered, endured and survived—such a woman as Whistler pictured in the etching of "My Mother." I

often thought of asking Mr. Ford if he had ever suffered, but was never quite able to do so.

But somebody has suffered—either Ford or his mother or some other ancestor. The record is written plainly on the upper part of his face. It was in Lincoln's face, too.

When the boyish, laughing Ford is present, one is conscious of nothing else. But back of the boyish Ford—ready to emerge with the speed and noiselessness of light—is the Ford who seems to have lived for ages, to have suffered much, and to have survived through sheer exercise of the will to live. "Mr. Ford," said one of his friends to me, "is an old, old soul, and the present is but one of the many lives he has lived." On two different occasions, Mr. Ford told me that he believed in reincarnation. "I belong with the Buddhist crowd," he said.

Ford's intuitive faculties are tremendous. I believe he does much of his reasoning subconsciously. This may be because of knowledge gained in past incarnations, or it may be because he has inherited more than man's ordinary share of woman's intuition. Whatever the reason, Ford has an enormous capacity for "feeling" the truth, several examples of which I will give.

Ford, the vice-president of a great American railway company, and an eminent engineer were riding across a railway bridge. The railway official called attention to the bridge which was new.

"Don't tell us how much it cost," said Ford quickly. Then speaking to the engineer, Ford asked him to give an estimate of its cost.

The engineer looked toward one bank of the stream, then to the other, noted the

nature of the construction, and said the bridge cost $5,000,000.

"Don't tell us yet how much it cost," said Ford sharply, addressing the railway official. "I want to make an estimate."

Ford then repeated the antics of the engineer, looking to one side of the river and then the other.

"That bridge cost less than $3,000,000," said Ford.

The railway official then said the bridge cost $2,750,000.

Ford had no expert knowledge, no training as an engineer, and had never built a great bridge. But he grazed the actual figure, coming much nearer to it than did one of the best engineers in America.

At Muscle Shoals, as we were passing below the big dam, I heard Ford and an army engineer discussing the cost of completing the dam. The army's figures were

higher, one set of estimates going as high as $45,000,000. Ford said $20,000,000 would finish the dam. "A lot of cement can be poured for $20,000,000," he said to the army engineer.

A few days later, at Dearborn, Ford said to me: "Did you ever see our tractor plant at the Rouge? That cost $40,000,000, and it was twice as much work to build it as it would be to finish the dam at Muscle Shoals."

What was that but "feeling" the cost of finishing the dam? Ford set up in his mind a tractor plant, and a completed dam, the first of which is no more like the second than a house is like a railroad, yet he compared the incomparable and "felt" the result—$20,000,000.

Edison told me of an occasion when he and Ford were discussing the method by which the "drive"—that is to say, the

power—might be applied to a certain machine. Edison did not believe Ford's plan would work. It did work, however, and Edison told me that, after thinking it over, he had become convinced that Ford had hit upon the only plan that would work. What guided Ford's mind?

Ford once said to me: "I don't like to read books; they muss up my mind." Herbert Spencer said much the same thing. Joaquin Miller, who wrote volumes of poems, plays and novels, kept not a book in his house and said that "Books are made for people who can not think." Miller was wrong, of course. Good books are made for people who want to think better. We think best when our minds are made active by contact with other minds. That is to say, most of us do. Herbert Spencer said he didn't. Ford says he doesn't. Ordinary rules do not apply to original think-

ers. It is quite conceivable to me that much reading might have spoiled Ford. It would have spoiled him if he had believed what he read. Ford is a success only because he has done so many things that the best authorities said could not be done.

One of the few men who are really close to Mr. Ford made this statement to me:

"Mr. Ford is a constant reader of only two works, so far as I have observed: Emerson's Essays and the Bible. He knows the Essays, in his own way, down to the core. He has Bibles all over his place. He does not regard the Bible as a book to be put up on a shelf and never read. He dips into it a great deal.

"In his library he has, of course, all the books worth having, a really noble room and a noble collection, but you can tell Mr. Ford's section by the way the books have

been soiled by use. I've looked into that section: odd copies of Emerson, several plays of Shakespeare, several kinds of revisions of the Bible, books on the gas engine, on farming, on chemistry—these are the books he actually *reads*. His favorite book gift is Emerson's essay on Compensation. I think that essay comes nearer stating his creed than anything else.

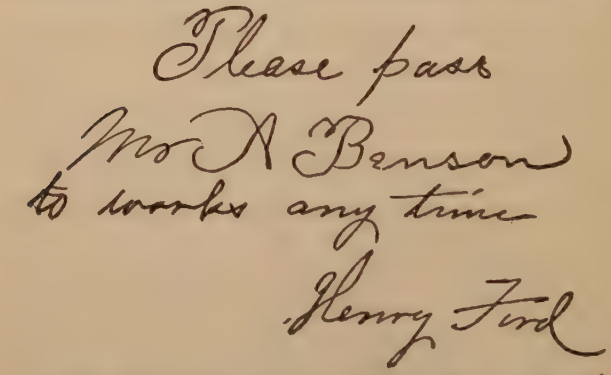
"As to fiction, he gets that through Mrs. Ford, who reads to him every notable novel, and it is interesting to hear the discussions he sometimes throws into the midst of the reading. 'The Growth of the Soil' attracted him greatly early this year. Mrs. Ford also read much of Well's 'History' to him. Thackeray's novels were a part of the winter's reading, too, as I happen to know. Mrs. Ford is a great reader, and sees to it in the course of a year that H. F. keeps in touch with more of the book

world than he likes to admit. As an illustration of the range of his mental interests, I may say that he spent a number of days over a period of weeks trying in artists' studios to get into the ideals that inspired them and the technique which they used, just as he was deeply engrossed in looking into the various wheat blends in flour and the various processes of baking bread, this winter."

There is a widespread belief that Ford is illiterate, some going so far even as to say that he can not read or write. There is not a word of truth in this. He had an ordinary country school education. I have seen and heard him read, many a time. I have seen him write. He can write as well as anybody need to—better than the average business man. Typewriters have made us all poor penmen.

Ford's alleged illiteracy brings up an

odd trait in his character. When he is unjustly attacked, he is more than likely to seem to give aid and comfort to the attackers. It is his way, apparently, of show-



A pass that Mr. Ford wrote for the author. Some of Mr. Ford's enemies say he can not write, but Mr. Benson saw him write many times.

ing his contempt. During the Chicago Tribune libel suit, Ford was viciously heckled about his education. He was asked to read something aloud to the jury and wouldn't. Why wouldn't he? Well, he didn't want to. Did he wish the jury to understand that he couldn't read? Ford

said he did not care what the jury understood. It is a strange combination of mulishness and contempt.

When we were at Muscle Shoals, Ford was visited by the representative of a newspaper that was attacking him. Ford said to the reporter:

"You have been sent to see me. Now you go and write anything you please and sign my name to it. I will not repudiate it, whatever you may write. I will certify that you saw me."

The newspaperman did not sign Ford's name to his article, but he wrote a miserable mess of lies, sneers and innuendoes. Ford afterward showed me the article and explained how it came about.

Again and again that little streak of mulishness crops out in Ford's character. He does not believe in charity. Having gone on record to this effect, he apparently

feels that, at any cost, he must stand by his guns. I heard a story in Detroit that I think is true, with regard to a committee that visited Ford to try to induce him to make a contribution to the "Community Fund"—a sum that is raised each year out of which all of the charitable organizations are maintained. As the story runs, Ford said to his visitors:

"There is only one lower thing in the world than you have done in asking me to give to charity and that would be for me to do what you ask."

Ford would not contribute a cent—but Mrs. Ford gave $75,000 and their son Edsel gave $25,000.

One has to understand this mulish streak to understand Ford. It never manifests itself in badness, but it is very peculiar. It is one of the many characteristics that make him "different."

Yet no one's sympathies can be touched more easily than Ford's. Tho I am sure he would not wish the following incidents to be made public, I know they are true and I feel that they should be told. While I was in Mr. Ford's office an old friend came to him with a tearful story about a bank that was about to foreclose upon his home. Ford heard his story and told him to come back the next day. When he returned, Ford, who had obtained $5,000 in bills, handed him the money and told him to pay off his mortgage. After handing the man the money, Ford gaily said "Good-by" to him and hurriedly started to leave the room.

"Wait a moment," said the man, "and I will give you my note for this."

"Never mind, never mind," replied Ford, continuing toward the door, "I'll see you some time and you can pay me."

This is the other incident: When Ford went to Florida in the spring of 1922, he heard, in the course of a few days, that an old friend was about to lose his place through mortgage foreclosure. Ford seemed to feel hurt that the man had not told him his troubles. He sent for his old friend and learned that the report of the impending misfortune was true. The man must have had considerable property and many complications, as Ford wired to his secretary in Detroit to come to Florida, unravel the tangle, find out how much his friend owed—and pay off his indebtedness.

I said there were two incidents that I would set down here, but there is another that is but one of many such. It was found that brass castings were being stolen from the factory. Investigators traced the thefts and found the thief—a young man employed in the plant. Ford sent for him.

"I am sorry you have done this," said he. "We have found out that the money you obtained by selling castings was paid by you to a loan shark. How much more do you owe him?"

The young man named a figure.

"Well, we will pay the remainder of what you owe and you can pay us back out of your wages—whatever you can afford each week. I know you will not ever do anything like this again."

Ford apparently has a horror of yielding when he believes he is right. In a matter in which he was deeply concerned, I once saw him order a paragraph stricken from a letter merely because he thought it would be construed as an effort to explain a position that he had publicly taken. Ford said he would explain nothing—that the proposition he had made spoke for itself and that was the end of it.

I never saw Ford lose his temper and, so far as I could learn, he never does. He has animated conversations, perhaps, but they are always under control. Early one morning, during the first part of my sojourn in Dearborn, he pointed through a glass partition to some men in an adjoining room and said: "I've got to go in there and raise a row. I'll be back in a minute."

I suppose I showed a little surprize which he noted.

"Do you think we never have rows around here?" he asked. "We sometimes have three or four a day. Now there are two men in there who have told us that we can not do a certain thing that we are doing. I am going in there and cancel all of the business they are doing with us."

Ford told me what the business was and it ran into big figures.

He went into the room and I watched to see—or hear—the fur fly. Ford and his two visitors sat around a big flat desk. Ford slid pretty well down in his chair, as is his custom, and had his elbows on the arms of his chair, with the forefingers of his hands, tip to tip, in front of his mouth. The other men would lean over to him and talk while he leaned back and listened. In a few minutes the two visitors left and Ford returned to the office in which I was. There had not been a sound or a motion to indicate a "row."

"Well, did you cancel their business?" I asked, as he sat down.

"Yes," he said. "They are outside now, wondering what has happened to them."

On the surface, Ford is a bundle of contradictions in his business relationships. He shut down his Highland Park plant, in 1921, for instance, to "jam" dealers in

raw materials and compel them to reduce prices—and he did "jam" them until it hurt. Yet when he wanted to buy the Detroit, Toledo & Ironton Railroad he voluntarily paid the stockholders more than their stock was worth in the market. These apparent contradictions are dissolved, however, when one realizes that while Ford likes, whenever he can, to do the handsome thing, he has a long eye to the future and a keen desire to bring about the "greatest good to the greatest number." In the case of the dealers in raw materials he felt that the public interest required that he should batter down their prices, but on the other hand, he was glad to pay more than the market price of a railroad, merely to make the stockholders feel that they had been well treated by him. He paid $3,000,000 more for the Lincoln Motor plant than the court first asked him

to pay—paid it because he asked the court to increase by $3,000,000 the minimum price at which it was to be offered at receiver's sale. Ford told me afterward that he paid $4,000,000 more for it than it was worth. For some reason Ford wanted to buy the property. According to one story, he bought the Lincoln because Mrs. Ford wanted him to rescue the Lelands. I think this is the true story. Another account has it that he bought it to please his son, Edsel. It is often difficult to tell why Ford does a thing. If Edsel Ford wanted the Lincoln, however, that would be a sufficient reason for his father to buy it. Edsel is the apple of his father's eye.

Edison once told me that he, himself, was a "freak," meaning thereby that he had not taken the usual course of development, which he attributed, by the way, to the fact that in youth his mind had not

been "atrophied," as he expressed it, by the study of school books.

Ford is another freak. I doubt if America will ever produce another man like him, just as I doubt if it will ever produce another Edison. America may produce greater men than either of them—tho we should not expect them too soon—but it is not likely to produce the counterpart of either of them.

Ford is a distinct product of this age. He is here because we need him. He fits into our necessities as a hand fits into a glove. Our water power needs saving, our industries need organizing, and our wasteful methods of distribution need reformation. Ford is showing us how to do these things. The country has unconsciously paid him a billion dollars for teaching it how to produce without so much waste and to sell without profiteering.

XXVII

Ford and the Presidency*

THEODORE ROOSEVELT is said to have predicted that in 1924 Mr. Ford would be a candidate for the Presidency. It was not, however, until 1923 that the American people contemplated such a possibility. Suddenly "Ford For President" clubs began to spring up. The first club was formed in Dearborn, Michigan, by some of Ford's neighbors. Ford denied responsibility for all such clubs and professed no interest in their purpose.

Mr. Ford repeatedly asserted to me

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*Mr. Ford's name was not associated with the Presidency when the preceding chapters were written. This chapter is added to cover a later phase of his life and, as he has not read it, it should be understood that his general appreciation of the book does not apply to this part.

that he sought no Presidential nomination. His assertions, however, seemed to be merely the exercise of the right to keep his aspirations to himself until such time as he might care to reveal them. What those aspirations are need not be doubted. Mr. Ford is a normal American. Every normal American would like to be President.

Mr. Ford's first conception of himself as a possible President probably came to him when President Wilson induced him to become a candidate for United States Senator in 1918. From remarks that Mr. Ford made to me in 1916 I believe he was not then thinking of the Presidency. But it is Ford's nature to try to do everything in the biggest possible way, and it therefore seemed proper for him to infer that if he was to mix in politics he should not stop at a senatorship, but should go out for the grand prize.

A remark that he made to me in January, 1922, seemed to indicate the direction in which his mind was tending. We had been to luncheon with the full staff of executives of the Ford Motor Company. Ford and I walked behind the others as we returned to his offices. Apropos of nothing in particular, Ford suddenly pointed to one of his men and said: "There is the kind of a man I would appoint Secretary of the Navy." After that, it did not seem to be necessary to pay much attention to Ford's remarks about his lack of interest in the greatest office in world. Men who are not thinking of the Presidency do not consider what men they would appoint to the cabinet. Moreover, men in high position in Ford's service have long urged him as a Presidential candidate. Ford could have stopped them. He let them talk.

Ford's enemies say he is not fit for the Presidency. They say he is ignorant with regard to history, principles of government and of nearly everything else that is usually regarded as tending to qualify one to fill the highest office in the land. Ford is ignorant in some respects. So is everybody. Ford's critics are amazingly ignorant with regard to many facts as to which Ford is well informed. But the question arises whether learning is in itself a qualification for the Presidency. Is it not more a question of a man's attitude toward his fellow men? If it were otherwise, we should always have a great president if we were to elect the president of a university. But our experience has seemed to indicate that much learning does not necessarily make a good President, or lack of it a bad one. Woodrow Wilson has great learning but millions of Americans

regard his administration as the greatest disaster in American history, and eight years of Wilson produced a seven million plurality for Harding. Washington was not even a college graduate. Andrew Jackson had almost no education. What Lincoln knew he picked up after he left school. Learning is a great background, without doubt, but it is not the most important part of a President's equipment. What a President does not know he can be told. But no President's attitude toward his fellow man can be much changed after he enters the White House.

Ford's general attitude toward the rest of the human race is splendid. If he were to become President and bring disaster to the country it would not be because of his lack of learning, or of any defect in his attitude toward the people of this country. If disaster should come it would be more

likely to follow as the result of Ford's tendency to evolve ideas of national policy, as he evolves manufacturing ideas, and put them through. He has a sure touch in manufacturing—his ideas are good. Would they always be as good in government?

Ford made statements to me in September, 1922, that made me feel he might be a dangerous President. I do not know whether he meant them or not. I never printed them because I did not wish his Wall Street friends to have another club to hammer him with. He was not then a political factor and it seemed best not to provide his industrial enemies with another weapon. Since then, Ford has become a political factor and the people are entitled to know everything he thinks about public affairs.

On my way back from California I read of the acute diplomatic situation that

existed between Great Britain and Turkey. It looked as if there might be war. Believing that if war should come, propaganda would at once be unloosed to drag the United States into it, I stopped at Dearborn to interview Ford. I thought he would sound a warning against American participation in any more European wars. To my surprize, he did precisely the opposite.

"There is going to be another world war anyway," he said, "and the United States should get into it at the beginning and clean them all up."

I told Ford at the time that I would not write the interview and he was quite vexed with me. I print it now for whatever it may be worth. If those were and still are his views, the people will be interested in them and he will no doubt find many occasions to reiterate them. If they were

not and are not his matured opinions, he can set himself right.

On the same occasion Ford said some other things that I told him I would not print and again he was vexed. We were sitting in one of his offices at Dearborn when he suddenly exclaimed: "All that is the matter with this world is injustice. Establish justice and everything will be all right."

This was such a sweeping, general, axiomatic truth that it seemed to me to mean nothing. So I asked him to be more particular—to put his finger on this thing and that thing that were wrong. But no amount of questioning was sufficient to draw him out. So I asked him what should be done to remove injustice.

"Increase the salaries of the supreme court judges," he replied. "Pay them more

money. They don't get enough. Put their salaries up where they should be."

I could hardly believe my ears. I asked him if it were possible that he believed the mere increasing of salaries would change the opinions and decisions of men.

"Would you leave the appointing power that makes the judges where it is?" I asked. "Wouldn't you try to get a new kind of judges by letting the people select them instead of permitting this power to remain where it is?"

"No," he replied, "I would not change the appointing power."

This will strike some persons as merely foolish, while Ford's remarks to me about the desirability of plunging into the next European War at the outset will strike others as highly dangerous. Ford's views on war and peace have changed radically

since the beginning of the World War. He told me in 1916 that he would not be in favor of resisting even invasion by armed force. He took the extreme pacifist position. After America entered the war he perhaps contributed more to its prosecution than any other civilian. He now believes that we shall be most likely to have peace if we have the strongest navy in the world.

As a presidential candidate, Ford would, of course, have the bitter opposition of the Jews because of the long series of anti-Jew articles that he published in his weekly paper, the *Dearborn Independent.* There has been much speculation as to the cause of his opposition to the Jews. Ford himself told me how he came to embark on the campaign against them. He said he was told things by a Jew on the cruise of

the Peace Ship that caused him to print the articles. "Almost everything we have printed was told to me then," he said. What he apparently meant was that disclosures were made to him that resulted in the preparation of the articles.

During the months that I was in Ford's office obtaining the material for this book, Ford often talked to me about the Jews. He gave me two leather-bound books composed of articles printed in the *Independent* and asked me to read them. He quickly learned that I did not share his views. As I felt that I could not change his attitude and was sure he could not change mine, I tried to keep away from the subject as much as I could and replied as briefly as possible to whatever he said.

One evening, the subject came up again, and when I expressed the usual dissent he

asked me if I had read the books he gave me. I said I had read most that they contained.

"Well, read them right away," he continued, "and then if you do not agree with me, don't ever come to see me again."

I was so astounded that he should try to bludgeon my opinion in this manner that he may have read my thoughts in my looks. At any rate, we continued talking and in a few minutes he came over to me, placed his hand upon my shoulder and said: "You can always come here to see me any time you want to."

That is one of the great things about Ford. If he ever does a thing that he afterward recognizes as wrong, he rights himself without delay.

The *Independent* articles, as everybody knows, were first directed toward the disclosure of the alleged fact that a world-

wide conspiracy has long existed on the part of the Jews to destroy Christian civilization. The articles also bitterly attacked "Jewish international bankers" who were held responsible not only for exploiting the people industrially but for plunging them into wars. Ford repeatedly denied to me that he felt a particle of antipathy toward the individual Jew because of his race and cited the fact that he employed many Jews.

A few days after Ford had told me not to come to see him again unless I changed my mind about Jews, he suddenly told me one morning that the series of anti-Jew articles that had long been running in the *Independent* would be stopped at once. I asked the reason.

"There is too much anti-Semitic feeling," he replied. "I can feel it around here. If we were to keep this up, some-

thing might happen to the Jews. I do not want any harm to come to them."

I asked him if I might print this announcement and he said I might. There was little time to cover the nine miles to Detroit to get the news into the afternoon newspapers throughout the country, so Ford sent me in his car with his chauffeur.

That was in January, 1922. The anti-Jewish campaign ceased. But Ford never changed his mind about the Jews. He stands where he stood when he was bombarding them. He mentions them frequently in conversation about public affairs.

Ford's training has not been all that a President's should be. His industrial and financial experiences have made him autocratic. I do not mean that he is harsh or mean, but as the sole owner of the Ford properties, it is his word that goes. He has

not had to cooperate with others, altho he has, of course, consulted with everybody whose opinions he valued. A President must necessarily co-operate with Congress and with many officials. Ford might learn to do this. Maybe he could not. If the occasion should come, the future would have to tell.

So far as domestic problems are concerned, Ford should make a great President. He knows industry and finance as the rest of us know our way home. International problems are another matter. If he should plunge the country into another European War he would probably wreck the nation. Twenty-five billions of debt, which we incurred at the tail-end of the last war, are proving a heavy burden. Another war would destroy Europe and bring America where Europe now is. Rather than see this, a good many Ameri-

cans would see Europe sink. They believe the world needs peace instead of more war. They do not believe that war can ever "end war." Of course, if Ford did not really mean what he said to me, that is another matter. But that is what he said.

THE END